a W. R. C. Smith publication

FIFTY CENTS

Textile Industries

Formerly "COTTON"

OCTOBER, 1956

GREENVILLE SHOW PREVIEW 145-170
26 pages of what and whom you'll see at the 19th Southern Textile Exposition to be held in Greenville, S. C., during the first week of October

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THE Newest PACKAGE IN THE TEXTILE INDUSTRY

SEE IT OPENED!

SPACE 832-33-34
SOUTHERN TEXTILE EXPOSITION
Greenville, South Carolina

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October 1st to 5th, 1956

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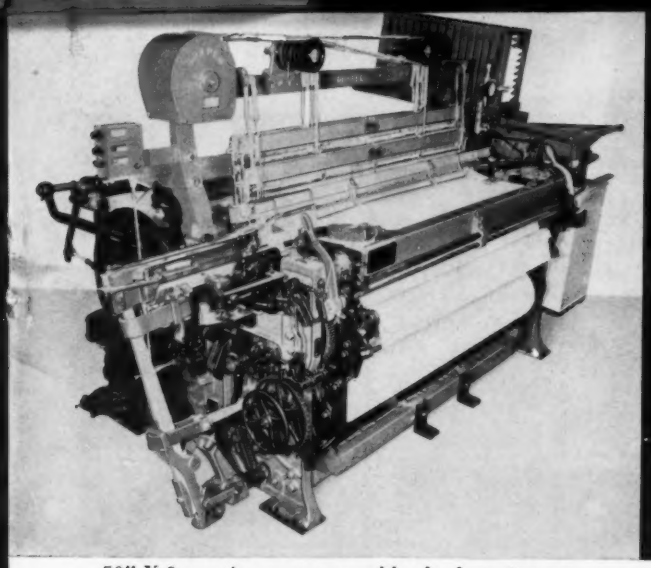
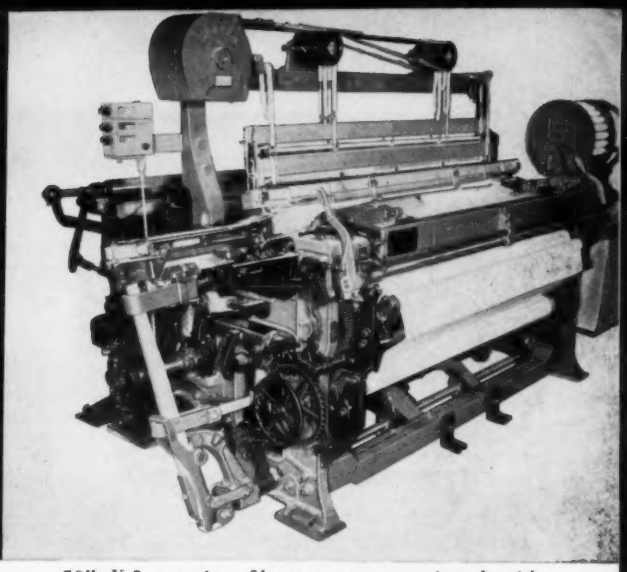


50″ X-2 weaving spun rayon blends. featuring new Filling Magazine.



50″ X-2 weaving filament yarns equipped with conventional Rotary Battery and new double-roll Take-Up.

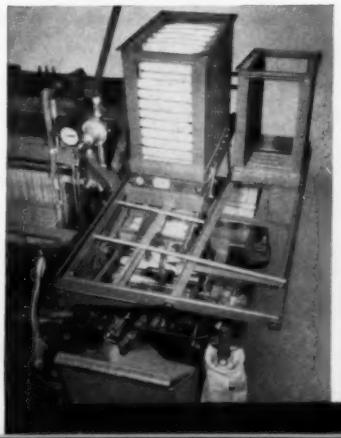
DRAPER TO EXHIBIT NEW RESEARCH AND ENGINEERING DEVELOPMENTS AT GREENVILLE

82″ XP-2 wide sheeting loom incorporating all of the latest improvements.

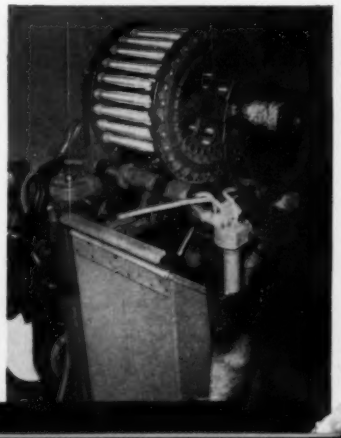
Draper Corporation will exhibit three looms at the Southern Textile Exposition. Many of the constructions on these looms are being shown for the first time. All are designed to increase production and efficiency, provide greater loom versatility and reduce labor and maintenance costs.

The exhibit will feature a new Automatic Filling Magazine (which eliminates the conventional type battery); a Pneumatic Thread Clearing device; a new Take-Up mechanism; new and improved Parallel Motions; and other assemblies which contribute to better loom performance. For the latest in weaving aids, see the Draper exhibit at the Southern Textile Exposition; booths #134-#135-#136.

Automatic Filling Magazine ... currently on mill trial.



Pneumatic Thread Clearer ... currently on mill trial.



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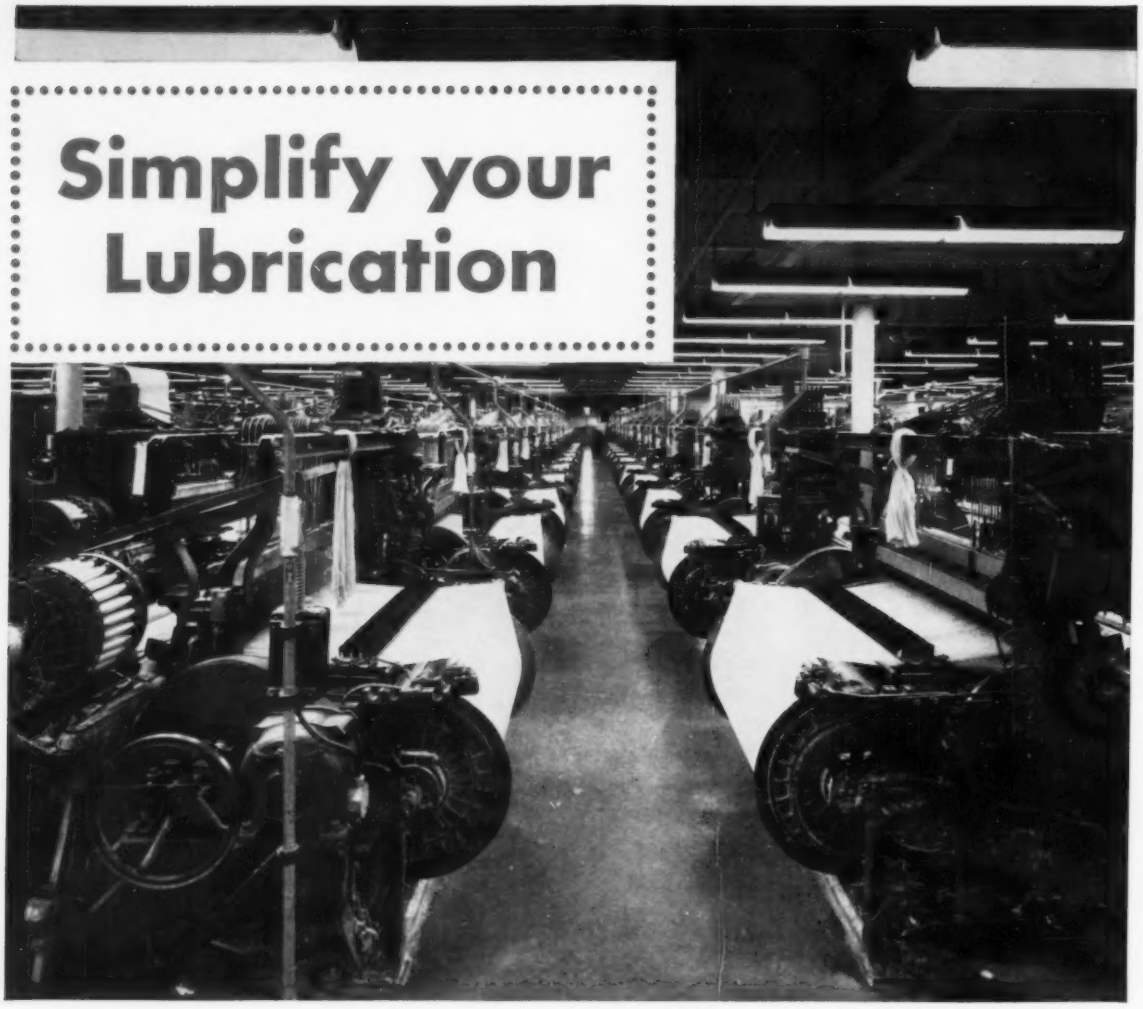

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VISIT TEXACO, BOOTH 424-5, ANNEX NO. 1, SOUTHERN TEXTILE EXPOSITION, GREENVILLE, S. C., OCTOBER 1-5

TEXACO

TEXACO Lubricants

FOR THE TEXTILE INDUSTRY

NBP BPA

Textile Industries

Formerly "COTTON"

Vol. 120, No. 10
October 1956

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"For delivery of carpet cores right on schedule... best folks we ever dealt with"

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Plants in Cedartown, Crossett, Ark., Bogalusa, La.

Manufacturers of better Convolute and Spiral Wound Cloth Tubes, Carpet and Rug Cores, Yarn Tubes, Cloth Winding and Baling Boards, Beaming and Carlining Paper.

Three plants to serve you. Prompt delivery by our own fleet throughout the South and Southwest.

Shorts and Remnants

by J. C. C.

► October 1-5 and the 19th Southern Textile Exposition, Greenville, S. C., are just around the corner. So let's all join hands for an old-fashioned singing bee. To the tune (roughly) of "Meet Me Tonight in Dreamland."

"Meet me next week in Greenville
To see the big Textile Show
You'll find lots that is new, there—
Plenty to view there
To help you and your mill make dough."

Plan now to go; but if you can't, look through the Show Section of this issue and through the ad pages. If you want to know more about anything to be on display there, write us or send the return card as suggested at the bottom of every ad page.

To all you friends, we will hold forth at Booth 408 as usual, and at Catalina Motor Court "after hours." Come and see us.

► Just because the Greenville Show occupies top billing this month, don't think we have forgotten the October history lesson. This is the month for John Brown—you remember "John Brown's Body."

It was Oct. 1859 and troubled times, and out of Kansas came a starry-eyed religious fanatic, probably a little "tetched in the head," to seize the U. S. Arsenal at Harpers Ferry, W. Va., and call all slaves to rise in revolt with free weapons. John Brown rose up against the U.S.A. with 21 followers (16 white, 5 colored), and on Oct. 16 seized the Harper's Ferry engine house and the estate and slaves of Col. Washington, a few miles from there. The slaves would not take up arms. No more appeared. Bewildered, he tried to make peace, but U. S. troops from Washington came up Oct. 17, seized him for trial, and later hanged him for treason.

A rather forlorn gesture; but the Yankees then had a martyr, and the South was certain that the Yanks had put John Brown up to it, and that was only the beginning.

The name of the U. S. general who captured John Brown? Robert E. Lee. For the record, Robert E. Lee, brave, true-hearted gentleman, did

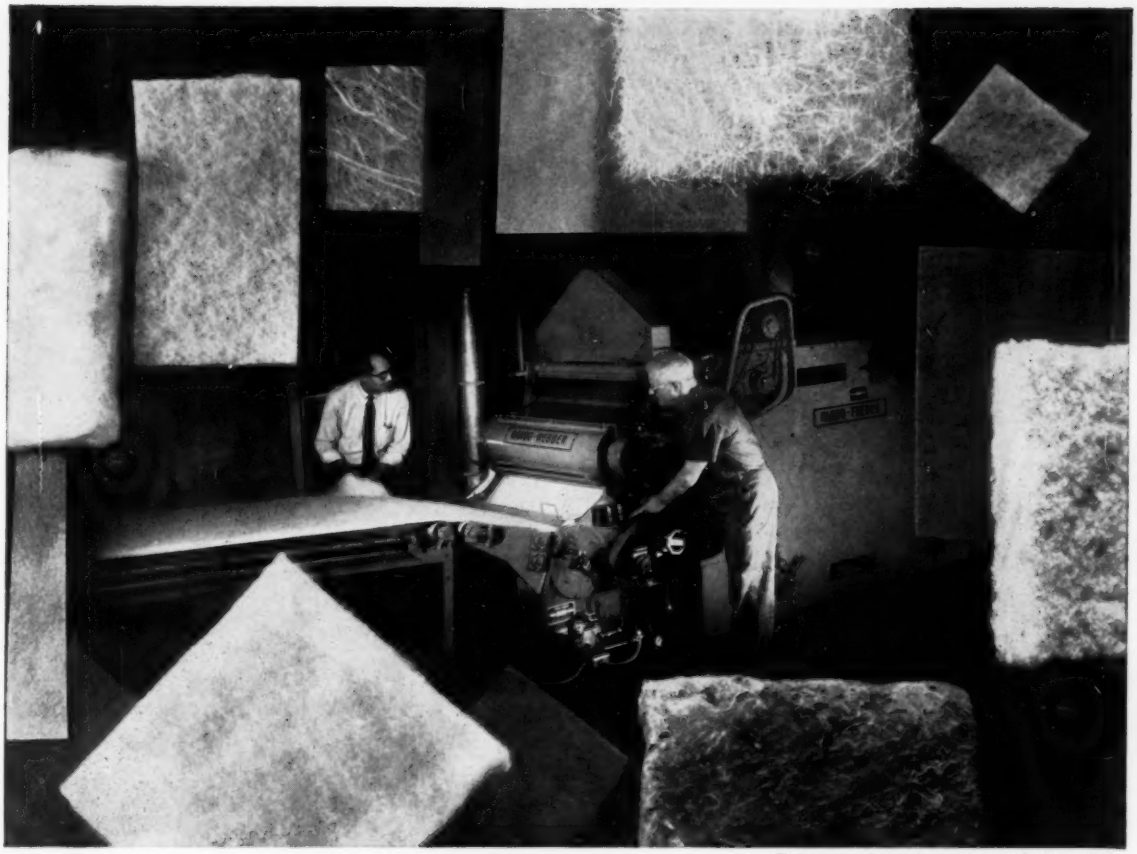

Photo courtesy Curlator Corporation, East Rochester, N. Y.

New way to form webs of intrigue

Pictured above is a quick and easy way to get into a fast-growing, profitable field. These ingenious machines convert waste or first-grade staple fibers – either animal, vegetable, mineral or synthetic – into versatile nonwoven fabrics, mats, wadding or felt, economically and efficiently.

Take cord or yarn wastes. By feeding them through the "webber" and impregnating the web formed with a bonding agent based on CHEMIGUM LATEX, one soon has a soft, smooth, porous, random fiber fabric of multidirectional strength.

CHEMIGUM LATEX is a colloidal dispersion of a butadiene-acrylonitrile copolymer. It is used in bonding agents to impart permanent adhesion, flexibility and softness.

Moreover, CHEMIGUM LATEX is easily handled and compounded. No complicated equipment or processing problems are involved in giving you an unusual product of wide application.

Write today for details and the latest *Tech Book Bulletins* on CHEMIGUM LATEX in nonwoven fabric and many other uses. Address: Goodyear, Chemical Division, Dept. V-9439, Akron 16, Ohio.

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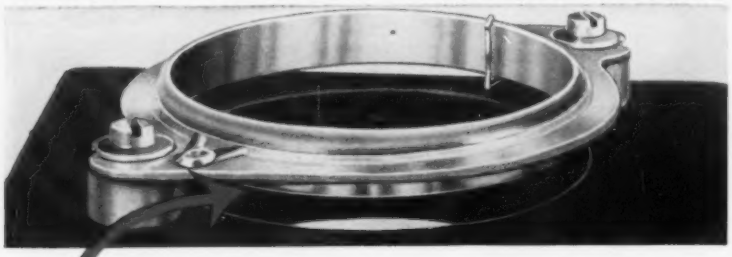
High Polymer Resins, Rubbers, Latices and Related Chemicals for the Process Industries

TO BE ON DISPLAY FOR THE FIRST TIME
IN BOOTH 105, MAIN FLOOR, GREENVILLE SHOW



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SELF-LUBRICATING
RAGAN RINGS

Even more efficient . . . you oil only once in 24 hours, and you oil them twice as fast because of the twin ducts to the twin reservoirs. No wicks, so can't carbonize; can't run dry because of filter pads and big twin reservoirs. Can be raised above ring-rail to prevent caked-on fly. 2¾ x 7/16 and 2¼ x 7/16, they spin worsted, synthetics, mixtures; twist cottons. Travelers from 4 leading makers.

FULL LINE OF CONVENTIONAL
MACHINED SPINNING RINGS;
DRY AND GREASE TWISTER RINGS

all with the
NEW JET FINISH

that gives you higher speed, smoother yarn and longer traveler life . . . exclusive with Ragan.

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The South's oldest manufacturer of all styles of spinning, common and vertical twister rings.

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William R. Fox, P. O. Box 380, Providence, R. I.

Shorts and Remnants

oppose slavery as a "moral and political evil;" sold his slaves in 1861. It was the wife of that old black-bearded, cigar-smoking, U. S. Grant that owned slaves right up to end of the War. P. S. The South won, too. We can prove it, and that's your history lesson for October.

► Ole S & R must seem ornery to some of our readers, or they don't want any part of our poetry. If it's being ornery, then we will make our resolution again. "Be nice to everyone, especially customers."

While we are about it, we will dig up those old slogans: "Keep your Eye on T.I."—"TI spelled backwards is IT"—"In '57 and '58 watch TI for everything great."

► You can't blame our editors Ole S&R might come out for Eisenhower for pres. and alienate all our good Democrat friends. Whomever you like, Star Woolen Co. of Cohoes, N. Y., has an "argument settler" for the election year. Write them for one. **Richard D. Levi,** pres., says they are conducting a straw vote for the textile industry, so inform them of your choice.

Stevenson puts in a bid for textile support by sending out a bundle of laundry consisting of 5 shirts, 4 handkerchiefs, and a pair of socks at the Chicago convention. That won't get him very far with the underwear and socks folks, though.

► And speaking of socks, Ruthrauff & Ryan, Inc., ad agency for the Adler Co., Cincinnati, Ohio, say that Top Sgt. Bilko and Carol Jean Lewis ("Miss 5th Army") are examining

Adler socks for summer uniforms of the U. S. Army and U. S. Air Force. Pretty aren't they?

Even without this famous guarantee

UNCONDITIONAL GUARANTEE
If this Housing ever Breaks or Distorts we will replace it Free.
COPR. 1955
THE RIDGE TOOL CO.
ELYRIA, O.

Genuine
RIDGID
would still be the World's Most Popular Pipe Wrench

Every RIDGID Pipe Tool TESTED individually before shipment

...and no wonder— millions of users know it out-performs, out-lasts all others!

It's the "RIDGID" name that guarantees you everything you want in a pipe wrench—instant bite on the pipe, instant let-go—it can't lock, assured by patented hookjaw suspension . . . handy pipe scale, easy-spin adjusting nut, comfort-grip I-beam handle . . . and every one factory-tested before shipment! Always most for your money...your Supply House has them!

You get more quality and more-for-your-money in all RIDGID Pipe Tools.

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4P Die Stock, 2½" to 4"

Pipe Cutter

Yoke Bench Vise

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Jimmie D. Walker

A.B., Mercer University '18, T.E., Georgia Institute of Technology '21; Mill overseer, Technical Salesman, Starch Company, North Carolina; Overseer slashing, '30 - '40; Technical Sales Repr., Southern Sizing Company, '40 - '46; Sales Manager, 1946.

BUT HE WORKS FOR YOU!

If you have a sizing problem in your mill, the logical thing to do is to get a sizing expert to solve it for you.

Put in a collect call to Southern Sizing Company or contact one of our representatives today! We have six men on our payroll whose job it is to help you make your mill run better. All are experienced engineers and all know weaving and slashing inside and out. One or more of these men is located near you.

We're the first to admit they aren't the prettiest guys in the business but we know they're the best when it comes to solving your sizing problems. Superior service and superior size are our two stocks-in-trade.

ROBERT BERT WALTON RUSSELL BOB

SSC Sizing and Service Salesmen left to right, Robert V. May, B. G. Stumberg, Jr., Walton Simmons, C. Russell Gill, Robert E. DeLapp, Jr.

SOUTHERN SIZING COMPANY

SUPERIOR SIZE, SUPERIOR SERVICE

East Point, Georgia

PHONE POPLAR 1-8871

SSC

Shorts and Remnants

(Continued from page 6)

► Do textile folks ever cuss?—that's the question in a letter from **Copia Verborium,** 313 Bertran, N.E., Knoxville, Tenn., calling all cussers to send $2 for a new book on "How to Cuss." A complete college course in cussing, he says, including 600 specific "nasty" words and an appendix of 1156 dirty name-calling words and for only $2.

► **Emmet Atkins, Jr.,** Burlington Industries, Inc., Greensboro, N. C., wants a list of all textile expositions or shows in the South from now until Aug. 1957. That's the Southern Textile Exposition, Greenville, S. C., Oct. 1-5. In fact it's this Greenville Show every two years, period. The only other textile show ever held in the South in recent years was a Wet Processing Show in Atlanta. The hosiery folks had their national convention at Roanoke, Va., this year. The tufted textile folks went to Miami, but no show there either. Plenty of conventions, but only one southern Show—that's Greenville.

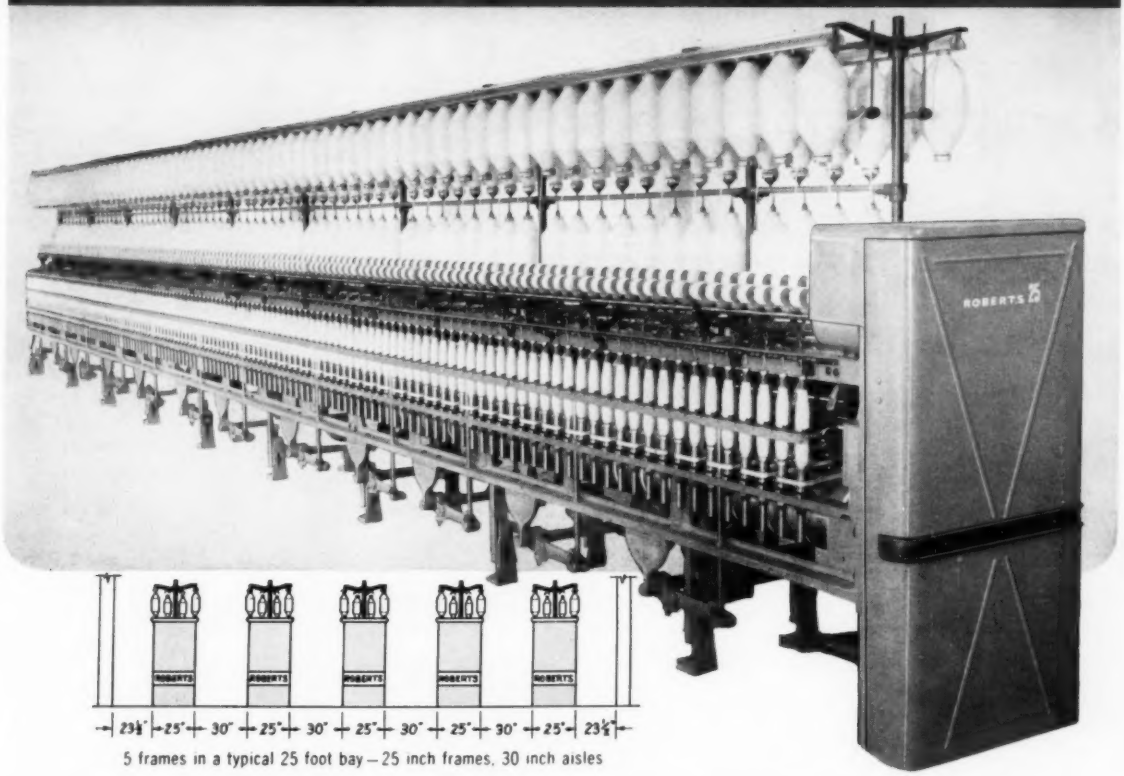
► A lot of our good readers in the Carolinas got some interesting packages when a good TI advertiser, Hinde & Dauch, opened a new corrugated box plant at Gastonia, N. C. A direct mail campaign to textile mills to further promote this plant, which included mailing of piggy banks ("To Hold the Savings") and checker boards ("It's Your Move").

was unique enough to warrant a special story in the ad paper, "Printers Ink."

► A good friend of ours, **Robert Morgan,** textile engineer, Rome, Ga., stopped in to see us recently—just back from a year or so in Germany doing engineering on cotton mills there. Says mills over there read TI just like in U.S.A. Also says so many short orders going through mills at once that it takes a genius to keep up with them. "Bob," who ran Brighton Mills [now Burlington Mills], Shannon, Ga., and also Tubize at Rome [now Celanese Corp. of America], is hale and hearty and

ROBERTS 25 SPINNING FRAME

- 25 inches wide
- 25% more yarn from same floor space
- 25% less building for same production
- 25% saving in building and utility cost



5 frames in a typical 25 foot bay—25 inch frames, 30 inch aisles

TRIED AND PROVEN. The Roberts 25 Spinning Frame is simple and straightforward, free from radical innovations or gadgets. It embodies all the tried and proven features most wanted in a modern spinning frame giving highest production and lowest maintenance.

ROBERTS DRAFTING. Roberts Double-Apron Drafting produces highest break factors, best yarn evenness and lowest ends down in a range of drafts from 10 to 60, for yarn numbers from 2's to 100's, in cotton, synthetics or blends.

SMALL, MEDIUM OR LARGE PACKAGES. The Roberts 25 Spinning Frame is available in gauges from 3 inches to 4½ inches and can be arranged for direct filling on 8 or 8¾ inch quills or for warp up to a 3 inch ring and 12 inch bobbin.

ALL BALL BEARING HEAD. The all ball bearing head design is outstanding in its simplicity and flexibility. Thirty greased-for-life ball bearings of one size are used and all plain bearings and studs eliminated. All gears in the head are hardened and have one pitch, one width, one bore and one size key, making them completely interchangeable. Two wrench sizes fit all shafts and tightening points. Draft Constant can be varied simply from 400 to 3200 and Lay adjusted for coarse or fine numbers by a simple gear change.

STANDARD FEATURES

Included as standard equipment are Roberts Ball Bearing Spindles, Roberts built-in Suction Cleaning, Roberts AeroCreels and 8 inch Cylinder Drives.

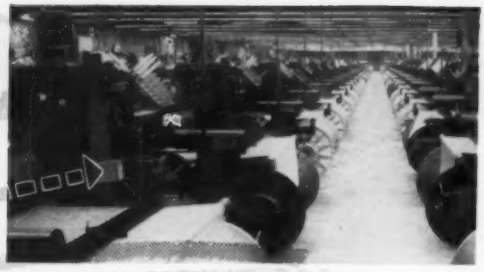
COMPARE ALL 3

For high production, top yarn quality, large packages, low maintenance expense, dependability—and, at the lowest investment per spindle—Roberts Spinning is second to none in America today.

ROBERTS COMPANY

SANFORD, NORTH CAROLINA

FIRST



in the history of POWER FACTOR CORRECTION

300 SPRAGUE ½ KVAR POWER FACTOR CORRECTION CAPACITORS INSTALLED ACROSS THE TERMINALS OF 1 HP MOTORS DRIVING LOOMS AT BELDING HEMINWAY CO., BEDFORD, VA. PLANT

1 *Motors are delivering 10% more HP and 5% more torque.*

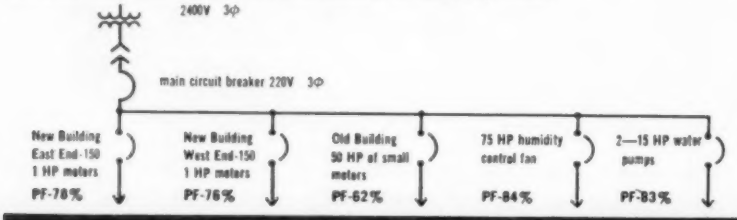
2 *Amperage load of the circuits, panels, etc., has been decreased 33%*

3 *Voltage has been increased to and stabilized at 237 V.*

4 *Power savings alone during the first two years exceed the entire cost of Power Factor Correction!*

BUY ONLY THE POWER YOU NEED

The production and operating savings gained by raising your plant Power Factor can far outweigh the cost. When Sprague engineers were called in to evaluate the Belding Heminway Company's electrical system, here's an example of what they found:



USE ALL THE POWER YOU BUY

After surveying the entire system, Sprague recommended: one unit of ½ KVAR corrective capacitance across the terminals of each of the three hundred 1 HP motors driving looms off the East and West End feeders; three units of 25 KVAR corrective capacitance across the Old Building feeder; three units of 10 KVAR corrective capacitance each across the 75 HP Humidity Control Fan; and one unit of 7½ KVAR corrective capacitance across each of the two 15 HP Water Pumps.

Following installation of this 225 KVAR of corrective capacitance, new Power Factor readings showed the following improvement:

	East End	West End	Old Bldg.	Fan	Water Pumps
PF before	78%	76%	62%	84%	83%
PF after	97.5%	97.5%	Unity	92%	99.55%

It's likely that Power Factor Correction could cut your plant production and operating costs, too. Sprague engineers will be happy to survey your plant's present electrical system and recommend corrective measures at no cost. Write today for complete details and name of nearest representative to the Industrial Capacitor Division, Sprague Electric Company, 427 Marshall Street, North Adams, Massachusetts.

YOU CAN DEPEND ON
SPRAGUE®
WORLD'S LARGEST CAPACITOR MANUFACTURER

Shorts and Remnants

still active doing textile consulting work. Some 30 years ago he wrote us: "I have been a regular reader for many years . . . the broad and diversified field is well covered and interestingly presented. I am proud to know it is a southern paper." There you are—30 years ago.

► A former New Englander, now selling to textile mills in the South, tells us to back him up in his plea for advertising in a southern publication (that's TI—read all over the world but published in Atlanta for 58 years). He says, "—is a good enough paper but I get around and TI has better coverage and readership." Amen, brother.

► Orchids to Curtis & Marble Machine Co., Worcester, Mass., on their

celebration this year of 125 years "Serving The Textile Industry." A handsome booklet traces the history of this cloth room machinery manufacturer from 1831 to the present date. **Walter Hildick** (Pelzer Mills, Textron, Inc., Arlington Mills, U. S.

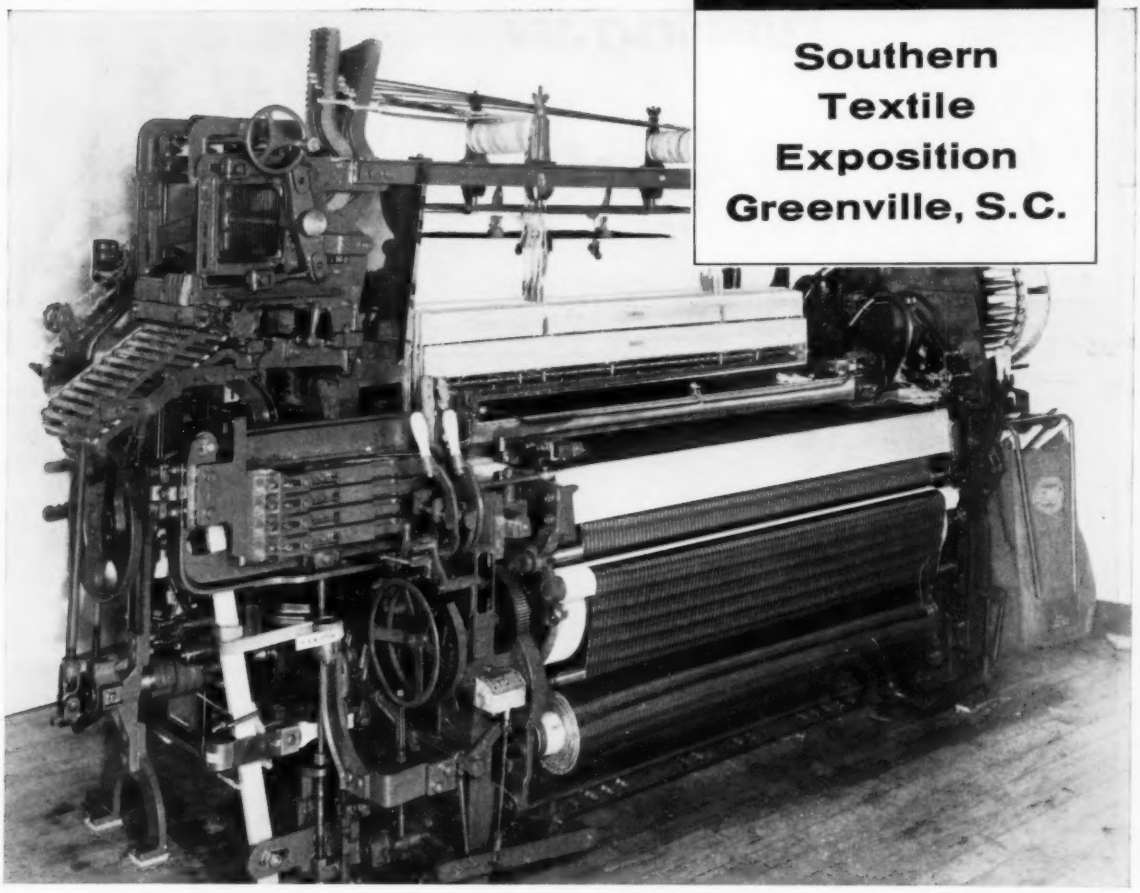
Mr. Hildick

Finishing Co.), pres. and treas., is ably assisted by **Harold E. Marble,** V.P., and **Walter E. Woodward,** V.P., with 59 and over 32 years respectively with the firm.

► While we are on anniversaries, another good TI advertiser, Hubinger Co., Keokuk, Iowa, celebrates its Diamond Jubilee this year. That's 75 years, and our announcement says "the oldest corn refining company in

See C&K at Booth 141

Southern Textile Exposition Greenville, S.C.



Newest M-P Looms running on Cotton Dress Goods

Latest developments in C&K's Multi-Purpose Loom design will be in operation at the Greenville Show.

One will be the **M-P** Automatic Bobbin-Changing Dobby Cotton Dress Goods Loom shown above. This loom is 56" between swords, 20 harness (15 32" gauge), 4 x 1 box.

The other **M-P** Loom on exhibition will be an Automatic Bobbin-Changing Dobby Convertible type . . . 56" between swords, 20 harness (15/32" gauge). This loom is convertible from 1 x 1 to 2 x 1, vice versa.

Come into Booth 141 and see for yourself the **M**ultiple-**P**rofit opportunities in C&K's **M**ulti-**P**urpose design . . . the *only* loom design that enables you to *convert overnight* from plain to fancy fabrics and back again, at the changing whims of the market. See for yourself that this is the **M**ost **P**rotection you can get for the competitive future of your mill.

CROMPTON & KNOWLES *Corporation*

WORCESTER 1, MASSACHUSETTS, U. S. A.

CROMPTON & KNOWLES CORPORATION C&K WORCESTER, MASS U.S.A.

Charlotte, N. C. • Philadelphia, Pa. • Allentown, Pa. • Crompton & Knowles Jacquard & Supply Co., Pawtucket, R. I.
Crompton & Knowles of Canada Limited, Montreal, Quebec

Booth

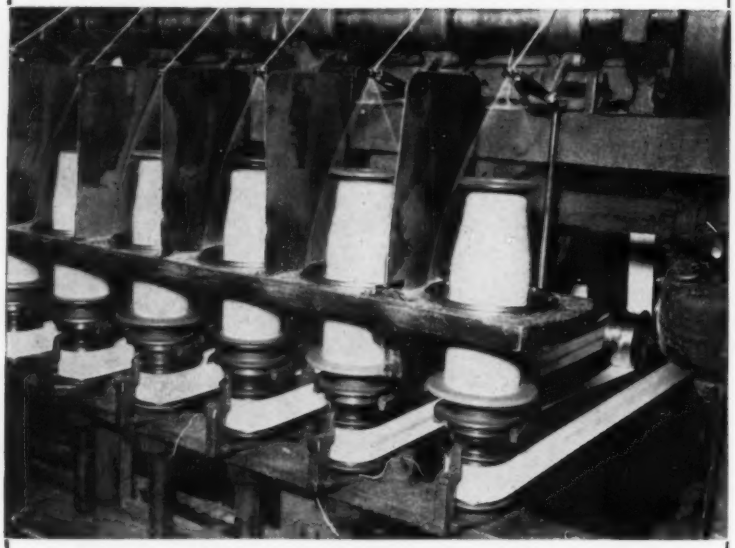
Originators of **STRIP-O-MATIC CARD CLOTHING**

FIRST . . . . . **STRIP-O-MATIC**

SECOND . . . . . **SUPR-O-TAPE**

Now...

SUPR-O-BAND



SUPR-O-BAND, the new banding for spindle drives on spinning, twisting, and roving frames. Promises to be as successful as SUPR-O-TAPE that revolutionized woolen condensing "over night."

ALREADY PROVED by more than a year of rugged mill tests. Note these plus features:

- IMPROVED QUALITY
- LOWER POWER CONSUMPTION
- INCREASED PRODUCTION
- MORE ECONOMICAL

BECAUSE . . . SUPR-O-BANDS Give:

- OPTIMUM SPINDLE SPEED
- LONG LIFE
- UNIFORM TWIST
- MAXIMUM FRICTION—NO SLIPPAGE
- LOWEST COST

SUPR-O-BANDS are lint-free; use belt-hooks or stitching.

- STRIP-O-MATIC CARD CLOTHING
- CONVENTIONAL CARD CLOTHING
- SUPR-O-TAPE FOR CONDENSERS

Visit us at the Greenville Show. Booth No. 115

BENJAMIN BOOTH COMPANY

ALLEGHENY & JANNEY STS., PHILA. 34, PA.

Booth

Shorts and Remnants

the country, and long an important supplier to the textile industry." **Roy Underwood** is bulk sales mgr., **Roy L. Krueger,** Pres.

Mr. Underwood

► **Ferdinand W. Mosteitz,** of same & Sons, Inc., Phila., requests Vol. 120, No. 6, for Felix Tonnar GMBH Dulken bei Krefeld, Germany. That's June Tufted, and other requests include **W. A. Seibert,** Atlanta, Ga.; United Kingdom Scientific Mission, Washington, D. C.; N. V. Katoenspinnerij Baumshoev, Enschede, Holland.

Ira L. Griffin, Jr., Charlotte, N. C., says **Cassius Clay,** V.P., John P. King Mfg. Co., Augusta, Ga., told him of a TI bulk starch handling article—that would be "Annual Savings from Starch Conveyor Equal 1/3 its Cost" (April '55). Also on this subject "Bulk Starch Handling at Avondale" Aug. '53 (reprints available).

Processing Glass Yarns

"We read with intense interest the article covering the processing of glass yarns [July '56]. . . "

JOHN L. BAGGETT
Cumberland, Md.

Applying Latexes

"Please send a reprint of 'Hints on Applying Latexes to Decorative Fabrics' [Sept. '55]"

DON DUGGAN
Mooresville Mills
Mooresville, N. C.

Silk Screen Printing

" . . . on the printing of textiles by the use of modified wallpaper printing equip., I would like very much to have at least 2 copies of this article."

MILTON LADEN
Morris D. Laden
Philadelphia 6, Pa.

► This was a New Equipment

Now! You can REPLACE *Fire Hazard* SOLVENTS

- *Inexpensively*
- *Easily*
- *Effectively*

with industry's fastest growing Solvent

IMMUNOL

(Reg. U. S. Pat. Office)

PROVEN
BY 10 YEARS OF CONSTANT USE IN LEADING MILLS.

NON-FLAMMABLE
NON-TOXIC
INHIBITS RUST
NO RESIDUE
SAFE TO SKIN
INEXPENSIVE

IMMUNOL costs approximately 13c per gallon when ready to use, mixed 1 part to 20 parts water. A neutral, non-irritant, IMMUNOL makes obsolete all other inflammable solvents, soaps and alkalies for metal cleaning in textile mills. IMMUNOL removes oil, grease, size, dirt, or soil from any textile equipment or machinery so easily, effectively and safely that hundreds of mills throughout the country use IMMUNOL exclusively for all cleaning operations.

Furthermore, IMMUNOL rust proofs as it cleans; defective goods resulting from unclean equipment are reduced; and IMMUNOL can be properly used by unskilled labor. IMMUNOL is truly the cleaner of hundreds of uses. Prove it to yourself. A free testing sample is available upon request.

MANUFACTURERS OF
GLYCOLA — FIBREGARD — ACTIVOL
REVERSOL — POTENTOL — FIRMTAL

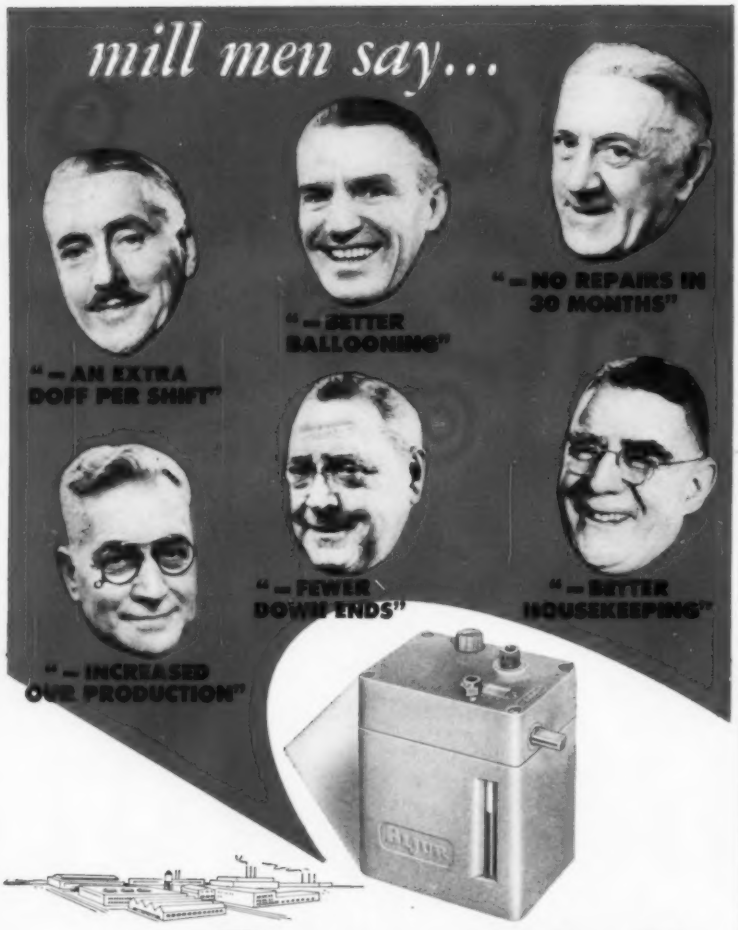
FOR A FREE DEMONSTRATION OF IMMUNOL'S VERSATILITY, WRITE OR PHONE
Service Representatives in Principal Cities

HARRY MILLER CORP. HAMICO 4th & BRISTOL STREETS PHILADELPHIA 40, PA

Phone: DAvenport 4-4000

HARRY MILLER CORP.

Original Products and Processes Since 1936
4th and Bristol Streets, Philadelphia 40, Pa.


mill men say...
"— AN EXTRA DOFF PER SHIFT"
"— BETTER BALLOONING"
"— NO REPAIRS IN 30 MONTHS"
"— INCREASED OUR PRODUCTION"
"— FEWER DOWN ENDS"
"— BETTER HOUSEKEEPING"

with **BIJUR** AUTOMATIC LUBRICATION

"INCREASED production, big cuts in repair costs and maintenance man-hours" – You'll hear this from mill men who have switched to Bijur automatic lubrication.

Poor lubrication causes most textile machinery breakdowns. Bijur Automatic Lubrication licks the problem of undue bearing wear. It supplies, automatically, the correct amount of filtered oil at pre-determined intervals. Unlike the fellow who handles the oil can, the Bijur System never forgets a bearing. There are no inaccessible bearings when you use the Bijur System.

Machines are lubricated while running which eliminates downtime for oiling and avoids injuries to workers. You save up to 50% on oil consumption. There's no excess oil to splatter and spoil materials and cause fire hazards.

With all these impressive benefits, it's time to discard hit and miss hand oiling. Let a Bijur field representative help you to incorporate the Bijur Automatic Lubrication System into your machines.

Colorful, new bulletin, "From Fibre to Fabric," shows the practical benefits that Bijur Automatic Lubrication offers to the Textile Industry. Write for your copy.

BIJUR
LUBRICATING CORPORATION
Rochelle Park, New Jersey
Pioneers in Automatic Lubrication

Shorts and Remnants

Parade item [p. 223 June '56] on a machine of American Automation Inc., Chicago.

Another Reader Liked Glass Article

"We were most interested to read the article entitled 'Glass Yarns Present Unique Problems—Here's How to Overcome Them' [July '56] . . . "

F. S. MACKAY
Manager
Fiberglas Canada Limited
Guelph, Ontario, Canada

In Again—Ultrasonics

" . . . Please send us in duplicate reprints or tear sheets of 'Ultrasonics in the Textile Industries—a Progress Report' [Mar. '55]."

F. W. HIGHTOWER
Branson Ultrasonic Corp.
Stamford, Conn.

Chain Warp Dyeing By Pad Steam Method

" . . . And also thank you and TEXTILE INDUSTRIES for a job well done [article on new pad steam dye range, Aug. '55] . . . "

J. G. SHEDD
V.P. & Gen. Mgr.
Lane Cotton Mills Co.
New Orleans, La.

Abrasion Test 1950

"Our laboratory has requested that we obtain if possible a copy of the article entitled 'Abrasion Test for Sized Yarn' by Stallings and Worth which appeared in TEXTILE INDUSTRIES about March 1950. . . . "

A. J. KELLY
Burkart-Schier Chemical Co.
Chattanooga 2, Tenn.

► March 1950 was correct.

Boss Gets His Copy

"Would appreciate several extra copies of August issue TEXTILE INDUSTRIES; naturally my copy went to the boss."

JOSEPH WAUTERS
Allentown, Penna.

101 Famous Poems

"I cannot find any Cable Co. in the Chicago telephone directory, so I presume the article in S&R is a gag —so, you may cable Cable Co. for me as an inquirer."

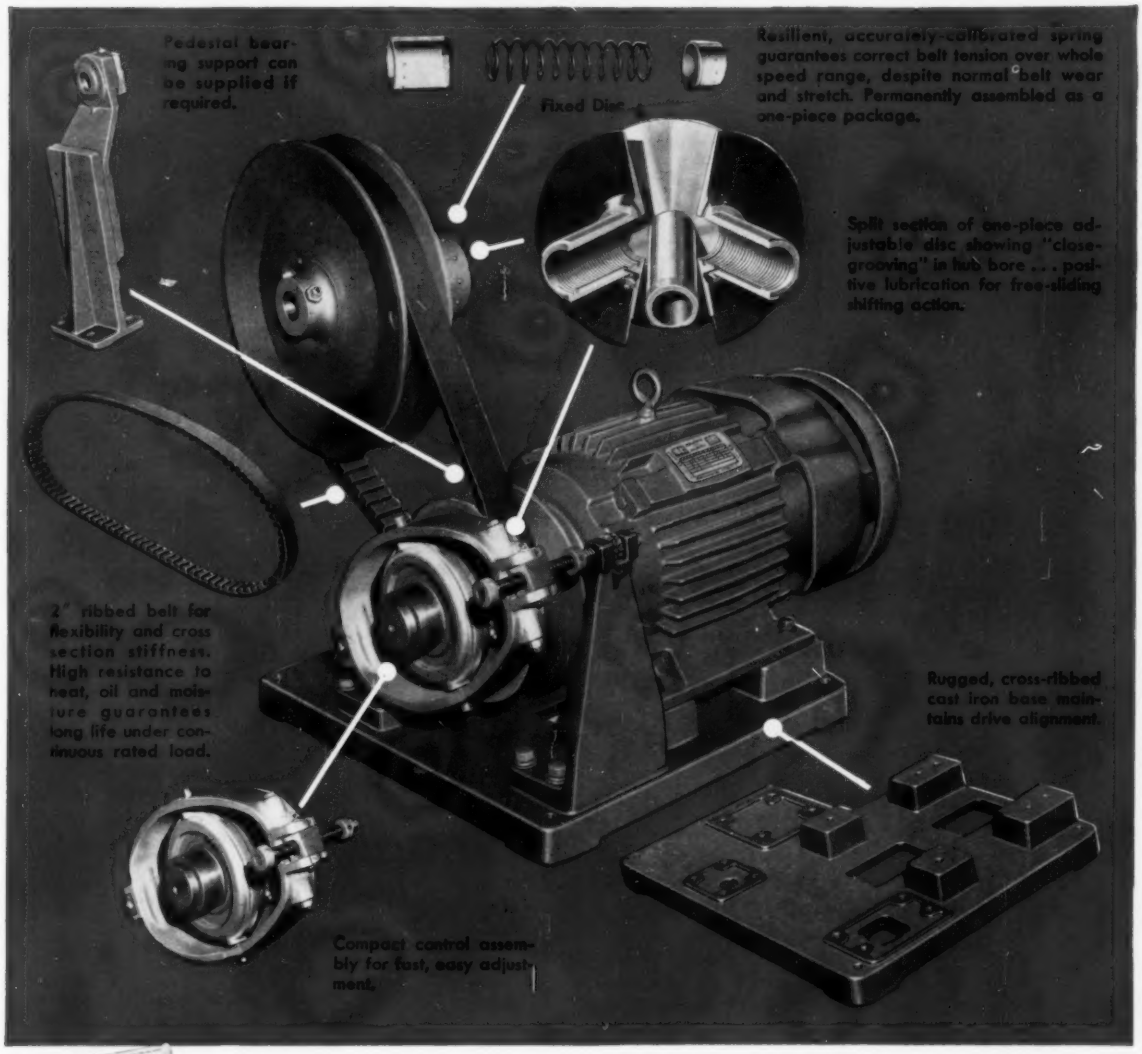
CHARLES M. SILLIN
E. L. Mansure Co.
Chicago, Ill.

► Oops, we are sorry. "101 Fam-

REEVES Vari-Spin®

MILL TESTED AND PROVED

Spinning Frame Drive: The drive that reduces fixer labor costs, increases spinning production, quantity and quality! 7½ to 15 hp! Any speed setting from 500 to 1450 rpm. at cylinder shaft . . . in *seconds . . . while frame is running!*


Pedestal bearing support can be supplied if required.
Fixed Disc
Resilient, accurately-calibrated spring guarantees correct belt tension over whole speed range, despite normal belt wear and stretch. Permanently assembled as a one-piece package.
Split section of one-piece adjustable disc showing "close-grooving" in hub bore . . . positive lubrication for free-sliding shifting action.
2" ribbed belt for flexibility and cross section stiffness. High resistance to heat, oil and moisture guarantees long life under continuous rated load.
Rugged, cross-ribbed cast iron base maintains drive alignment.
Compact control assembly for fast, easy adjustment.

For complete rating data and dimension charts, write for Bulletin T27-G561.

REEVES PULLEY COMPANY

DIVISION OF **RELIANCE** ELECTRIC AND ENGINEERING CO.

Columbus, Indiana

For further information use Handy Return Card, Page 273

SOUTHERN STATES' NEW COILER HEAD AND BASE MAKE CONVERSION TO LARGER CANS SELF-PAYING

For mills seeking a low initial cost for conversion to larger cans, Southern States' new conversion unit is the answer. It consists of: 1) the identical, vastly improved ball bearing head used on the new complete coiler; 2) an adapter spacer and upright shaft for increased coiler height necessary to accommodate 36″ or 42″ cans; and 3) a new, standard-type base assembly with a conventional gear system for driving the can table. All necessary components are furnished in kit form for quick installation, *using your existing stands.*

Southern States' Conversion Units are designed for use on any make cotton card and for accommodating cans of larger diameter.

Case histories of mills prove conclusively that Southern States' conversions are so economical they soon pay for themselves. For a small initial investment, you enjoy all the advantages of more efficient handling; lower operating costs; improved quality; simplified oiling; ease of maintenance; smaller parts inventory; and years of satisfactory service.

Get full facts from your Southern States representative or write direct to us for Technical Bulletin No. 203-a.

SOUTHERN STATES
EQUIPMENT CORP.
HAMPTON, GEORGIA

Shorts and Remnants

ous Poems," the best collection of its kind that we know of, is sold by Reilly & Lee Co., 325 W. Huron St., Chicago, and the price is now $1.50.

Better Bale Covering

" . . . refer to 'Search for Better Bale Covering Continues' [p. 91, Oct. '55]. We should be grateful if you could please let us know whether any results have been obtained from the tests that were carried out."

K. A. DICKSON
British Nylon Spinners, Ltd.
Pontypool, Monmouthshire, Eng.

► The National Cotton Council is still conducting tests.

Disappearing Yarns

" . . . Kindly advise where we can get some more detail about these fibers [disappearing yarns, p. 169, Aug. '56], particularly a fiber that will dissolve in steam without staining."

D. ALSTON
Alps Sportswear Mfg. Co., Inc.
Lawrence, Mass.

► Believe it or not, dissolving fibers have a lot of uses. Be sure to read that article in the August issue.

They Want to Buy

I. Barnett, Barnett Woolen Mills, Milwaukee, Wis., writes for data on rug picking machine to open tricot waste.

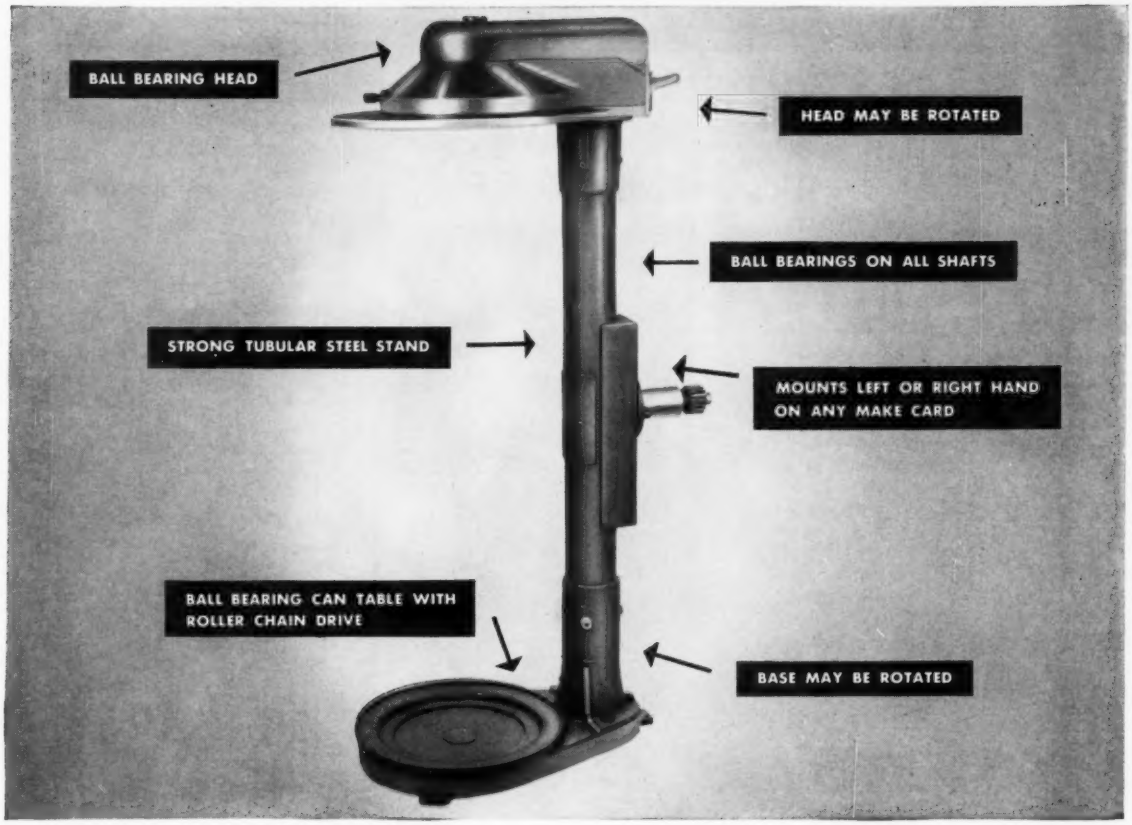
Edw. Rowland, Levittown, Pa., wants prices and terms on 3-stage slasher (West Point) also on 400-end creel (Reiner).

Simon Shapiro, treas., Marey Fabrics Co., Inc., Fall River, Mass., wants data on "Lintgo" to keep machinery lint from air in blow-off.

T. Schwanda, engr., Blue Ridge Textile Co., Bangor, Me., wants data on axial air-gap motor (Fairbanks, Morse).

Philip L. Factor, pres., Newton Textile Bleaching & Dyeing Co., Newton, Mass., wants dryer for curing tubular knit (Proctor & Schwartz, Inc.)

Eastern Engineering Co., Bombay, India, writes for prices on laboratory


BALL BEARING HEAD
HEAD MAY BE ROTATED
BALL BEARINGS ON ALL SHAFTS
STRONG TUBULAR STEEL STAND
MOUNTS LEFT OR RIGHT HAND ON ANY MAKE CARD
BALL BEARING CAN TABLE WITH ROLLER CHAIN DRIVE
BASE MAY BE ROTATED

HERE IS SOUTHERN STATES' NEW COILER WITH EVERY FEATURE MILL MEN WANT

The Southern States line of Coilers and Conversion Units has been vastly improved. Every engineering and operating feature desired by mill men has been included.

Now mills can profit by a coiler that will operate at peak efficiency, require a minimum of maintenance, and provide years of trouble-free service.

These streamlined, compact, premium-quality coilers are designed for direct attachment to any make of card, left or right hand. Installation is rapid and economical.

It will pay you to get complete information and find out how these improved Southern States Coilers and Conversion Units will profitably improve your operations.

ADDITIONAL FEATURES THAT MAKE IT THE FINEST OF ALL

- **Available for all can sizes**
- **Cut tooth gears throughout**
- **Self-aligning pillow blocks on upright shaft**
- **Self-aligning pillow blocks on calendar roll shaft**
- **Precision-ground cast iron calendar rolls**
- **Fully adjustable can table**
- **Quickly detached coil spring roll-loading device**

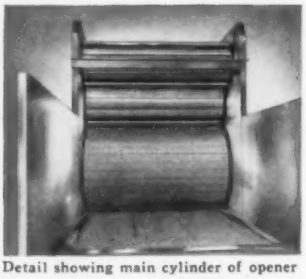
WRITE FOR TECHNICAL BULLETIN No. 203-a

SOUTHERN STATES EQUIPMENT CORP.
HAMPTON, GEORGIA

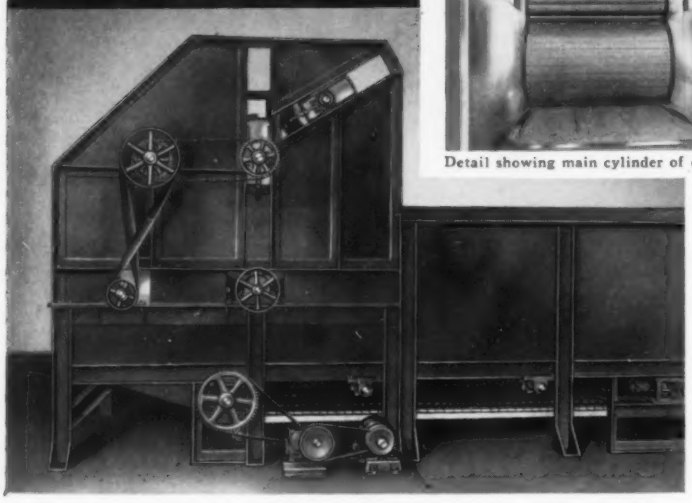
from Opening Room to Dye House

NOW! SMOOTHER OPERATION THAN YOU'D EVER DREAMED POSSIBLE

SARGENT'S



Detail showing main cylinder of opener



NEW HEAVY DUTY OPENER
with Rotary Evener and Stripper

delivers to the next succeeding process a more open, lofty fibre than ever possible with conventional-design openers.

Rotary drives replace the usual oscillating movement of evener and stripper rolls . . . exceptionally rugged construction insures less maintenance, longer life, reliable production quality of 2000 to 3000 pounds per hour . . . no feed rolls hold fibre while being picked, resulting in semi-combing action and fewer neps at the card . . . rolls adjusted to intermesh pins, providing continuous stripping . . .

From opening heavy grease wools for better picking and cleaning, to opening compacted dyed fibres — natural or synthetic — for better drying, here's a really modern-design opener to guarantee a superlative job.

Want more information? Write your nearest representative or write us direct. And ask for Bulletin No. 202.

C. G. SARGENT'S SONS CORPORATION
Graniteville, SINCE 1852 Massachusetts

PHILADELPHIA 19 — F. E. Wasson, 519 Murdock Road
CINCINNATI 15 — A. L. Merrifield, 730 Brooks Avenue
CHARLOTTE, N.C. — W. S. Anderson, Carolina Specialty Co.
ATLANTA, GA. — J. R. Angel, Mortgage Guarantee Building
TORONTO, CAN. — Hugh Williams, 47 Colborne Street

Shorts and Remnants

and pilot plant scale equipment for finishing.

Ralph J. Miller, J. J. Miller Knitting Mills, Shenandoah, Pa., wants rotary dyeing machinery as pictured page 145 Aug. '56 TI for Orlon knit goods, also product for softening Orlon knit cloth.

August ad page on Whitin "Fill-Master" filling winder drew requests from **J. T. McCarty,** ch. engr., John Zimmerman & Sons, Phila., and **Jesse A. Izenberg,** V.P., Newark Silk Co., Wilkes-Barre, Pa.

We had to look at the Aug. ad for "Catalog 80" of Lincoln Engr. Co. (lubricators), St. Louis, Mo., for **J. A. Zastoupil,** North Star Woolen Co., Sanford, Me.

The Mail Bag (Boy, are we lucky)

Broom prices are expected to rise because of the drought and short crop; so, if you have any sweeping clean to do, better get a new broom now. . . . Good care is essential for dry cows; so, if you have any dry cows, feed them good. . . . If you are in a fog, Bete Fog Nozzle, Inc., of Greenfield, Mass., has an electric mechanical counter for fog analysis and to save you measuring and counting the drops. . . . 137 tons of southern pine lumber bonded together with 2½ tons of glue (and not a single nail) make up the superstructure of the new Long Island (N.Y.) Sports Arena (the nail manufacturers won't like that) . . . Special Projects, Inc., N. Y., are accepting licensee tie-ins for Elvis Pressley (whoever he is), and they say don't forget to include their telephone number Watkins 9-5440. Try calling them collect.

Then there is the song about "The Train Runs Through the Middle of the House," with something about a door in the *back* but none in the middle for that's where is the railroad *track*. Another song goes something like "She's the Madonna That I Honor," so how about something like "She's the Sweet Patootie that'll Suit You" or "She's a Sweet Potato but I Hate Her."

► Brother that's all until November, and "We Like Ike" or "Vote for Adlai, We Need Him Badly." Take your choice.

EATON

DYNAMATIC®

SINGLE PACKAGE

FRACTIONAL HP AJUSTO-SPEDE® DRIVES

Provide Stepless Adjustable Speed from an AC Power Source

STANDARD

WITH FRICTION BRAKE

WITH SPEED REDUCER

Sizes and Types for Hundreds of Industrial Applications

Dynamatic Ajusto-Spede® Drives, part of a family of diversified eddy-current equipment, provide an economical solution to many adjustable speed drive problems.

The Fractional Horsepower Ajusto-Spede, a single package design, combines an AC constant speed induction motor, eddy-current coupling, and electronic control. Standard modifications provide for the addition of electrically operated fail safe friction brakes, or speed reducers with numerous gear reduction ratios.

Fractional Horsepower Ajusto-Spede Drive power is taken directly from 115/220 volt, single phase or 220/440 volt, 3 phase lines. Sizes are ¼, ⅓, ½ and ¾ horsepower at 1600 RPM; ½, ¾ and 1 horsepower at 3200 RPM.

Friction brakes for quick stopping or fast cycling operation are furnished in two capacities—1½ and 3 pounds feet of torque.

Gear reductions with 10 ratios between 5-to-1 and 100-to-1 are supplied with 1600 RPM Ajusto-Spedes.

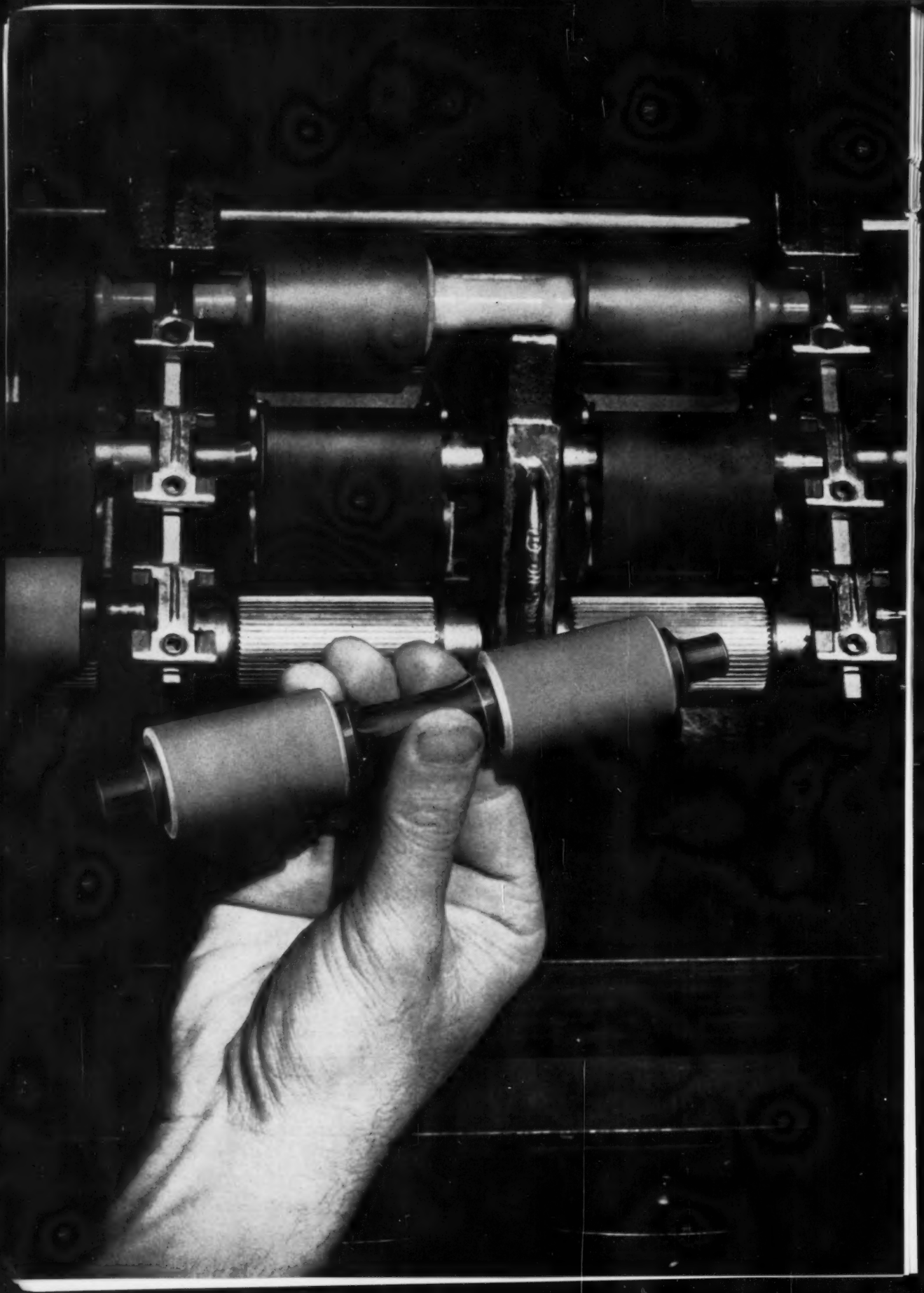
Ajusto-Spede® Advantages

- ★ **Constant torque speed range: 25 to 1 with either 1600 RPM or 3200 RPM Ajusto-Spedes.**
- ★ **Control accuracy: 2 per cent of top speed at any point within the speed range.**
- ★ **Minimum wiring to power line.**
- ★ **Remote "one knob" control operation up to 100 feet.**
- ★ **Rugged plug-in type integral one-tube electronic control.**
- ★ **Permanently sealed grease-packed bearings.**

For more detailed information, write for your free copy of the Dynamatic Fractional Horsepower Ajusto-Spede Bulletin, FAS-5.

EATON

DYNAMATIC DIVISION
MANUFACTURING COMPANY
3307 FOURTEENTH AVENUE • KENOSHA, WISCONSIN



Armstrong ANNOUNCES...

New anti-static cots with increased lap resistance

Mills faced with increasingly difficult lapping problems now can get the help they need from a group of new anti-static roll covers recently added to the Armstrong Accotex® line.

These new covers are designed to meet the problems created by the growing use of synthetic yarns, the trend toward non-metallic cap bars, and the elimination of other metal-to-metal contacts in frames.

In many mills, the Accotex J-490 Cover will continue to be the preferred cot because of its lap-resistant, patented compounding. Where the conditions mentioned above are found, however, *electrolytes* PLUS *anti-static agents* may be needed . . . and that is exactly what Armstrong textile research engineers have put into this new line of cots.

The function of anti-static agents is to carry off any static charges continuously. This prevents such charges from accumulating on yarn or cots to the point where there is danger of top roll laps.

Extensive field testing over a period of more than a year indicates that these new compounds practically eliminate lapping caused by static. In many cases they also significantly reduce waste.

Like all Accotex Cots, these new roll coverings will give long service. They need rebuffing at infrequent intervals, and the rebuffing does not impair their built-in anti-static properties.

With Accotex J-490, these new materials form a complete group of cots which will control lapping on spinning and cardroom frames. Where high static aggravates the lapping problem, these three new compounds are offered:

Accotex NC-762 **for frames with flat clearers**

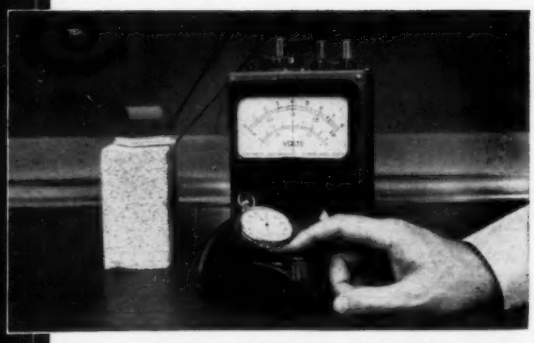
Accotex NO-764 **for frames with revolving clearers**

Accotex NO-763 **for comber detaching rolls**

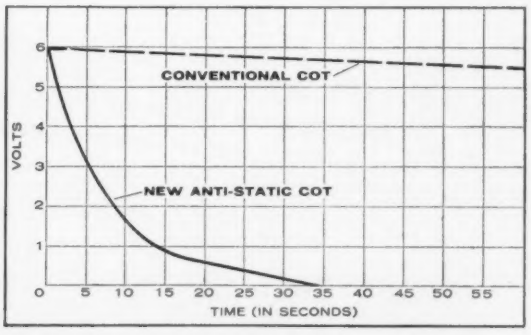
Be sure to see these new Armstrong anti-static cots at the 19th Southern Textile Exposition in Greenville, South Carolina. Or write for more information to Armstrong Cork Company, Industrial Div., 6510 Ivy St., Lancaster, Pa.

Armstrong ACCOTEX COTS

. . . used wherever performance counts

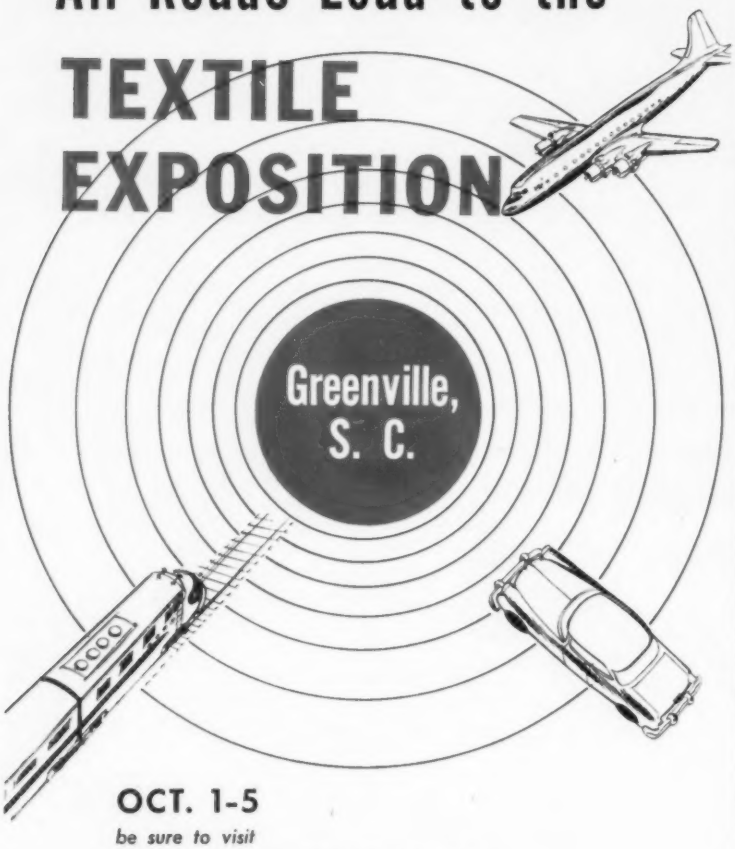


NEW ANTI-STATIC COT IS CHECKED in this test. First, an electrical charge is stored in a condenser by connecting its terminals for a moment to a six-volt battery. Next, the cot to be tested is placed upon a pair of needle-point contacts to which the condenser is wired. The cot thus provides a path through which the electrical charge in the condenser can flow.



The speed with which the cot discharges the condenser is shown by the rate at which the meter on an electronic voltmeter drops from 6 volts to zero. A stop watch is used to measure the time it takes. Typical results are plotted on the graph above. The new Armstrong anti-static cots bleed off a 6-volt charge in less than 35 seconds. A conventional cover takes over an hour to discharge the same voltage.

All Roads Lead to the TEXTILE EXPOSITION



OCT. 1-5

be sure to visit

ALVEY at BOOTH 514, ANNEX No. 2

Meet old friends and new among Alvey people at the Show! They'll be ready to welcome you . . . to show you the very latest ideas in Alvey Engineered Textile Mill Conveyor Systems!

Every time you MANhandle a product, you add to its cost . . . without increasing the value.

So, for profit's sake . . . ***convey*** your products.

ALVEY

ALVEY CONVEYOR MANUFACTURING COMPANY

9306 Olive Street Road • St. Louis 24, Missouri

Branch Offices in Principal Cities

245

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Personal NOTES

ABOUT MEN YOU KNOW

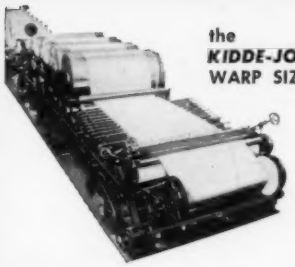
Succeeding his brother, **John C. Borden,** who becomes board chairman, **Arthur B. Borden** has been elected president of Borden Mills, Inc., Kingsport, Tenn. **William J. Still** was named executive vice-president and **William H. Borden,** vice-president and treasurer.

George A. Cralle has been elevated from vice-president to executive vice-president and secretary of Durham (N. C.) Hosiery Mills succeeding W. W. Couch, resigned; and **C. M. Knoblauch,** plant manager, has been elected to the board.

At Burlington Industries Inc., Greensboro, N. C., **Harold Bobo** has been promoted from division manager of tricot to vice-president of Burlington Tricot Co., and **John A. Boland, Jr.,** division manager of decorative fabrics, has been made vice-president of Burlington Decorative Fabrics Associates. * * * Resigning for reasons of health is **J. E. Garvin,** former vice-president. * * * **Raymond E. Kassar,** manager of sales, has been named

Mr. Kassar

president of Burlington Narrow Fabrics Co. * * * Promoted from assistant superintendent to superintendent of the Scottsboro (Ala.) Hosiery plant is **R. C. Poole,** succeeding **Carlisle W. Evans** who has been promoted to group manager of the Scottsboro and Franklin (N. C.) plants. * * * **R. W. Carley** has resigned as director of children's and boys' hosiery division of Burlington Hosiery Co., and **William Sirota** has relinquished his post as vice-president in charge of the men's hosiery division. **Phillip M. Russell** has been named vice-president in charge of sales and manufacturing for the men's and children's hosiery division—a newly created post, with headquarters at the Empire



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Precise control of size temperature, drying heats, speeds and stretch. Super-press quetsch provides uniform moisture extraction. Visual stretch indicator reveals degree of stretch as warp passes through. Adjustable width beam carriages. Stainless steel size box, immersion, quetsch and idler rolls, and cylinders. Available with 7, 9, 11 or more cylinders for either silk or cotton system warping or combinations of both.

Do your slashers meet these 5 tests?

1. Do they give you warps on which the amount of size is even from one end to the other and uniformly dried so that there is no trace of streaks?

2. Do they give you visual, fingertip control of stretch so that you can get uniform stretch through the entire warp or a whole series of warps?

3. Do they give you hard, smooth loom beams that do not make trouble for the weave room nor reduce loom efficiency?

4. Do they perfectly size any fiber you want to put through them, cotton or synthetic, spun or filament?

5. Do they run without breakdowns, 24 hours a day, turning out a steady stream of all the warps your weaving department needs?

If they do . . . *then they must be KIDDE-Johnsons!* If not, write us today for complete details of this world-famous warp sizer.

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BEAMERS • CREELS • SLASHERS • WINDER-REDRAWS • TENSOMETERS

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It's New from TOLEDO— send for yours today!

Your scales are a vital element in effective cost and quality control. Errors in weighing go all the way through accounting and affect cost . . . profit . . . or loss! You need to look at *all* your weighing today . . . not as isolated scales, but as a *weighing system.*

Toledo's new Scale Check Chart will show you quickly and accurately how well your scales are serving you, and provide the information you need for truly effective cost control.

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On Your Scales... Material Becomes Money!

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HEADQUARTERS FOR SCALES

Personal NOTES ABOUT MEN YOU KNOW

State Building offices. **H. L. Hoots** is Mr. Russell's assistant. **Julius M. Ramsay, Jr.,** formerly with Waldensian Hosiery Mills, Valdese, N. C. has been made manager of the men's and children's manufacturing division at the Asheboro, N. C., plant.

Fieldcrest Mills, Inc., Spray, N. C., have appointed **J. A. Smith, Jr.,** as development engineer at the Karastan Rug Mill, Leaksville, N. C. He was formerly associated with Engineered Plastics, Gibsonville, N. C. **Dwight Wilkinson** has been named assistant foreman of the plant service department at the Finishing Mill in Leaksville, N. C. He was formerly in charge of maintenance at Carolina Metal Products, Charlotte, N. C. • • • **Paul D. Emery,** formerly plant manager of the Bates Hill division at Lewiston, Maine, has been appointed to the new position of assistant to the vice-president in charge of manufacturing, Robert A. Harris.

Newly named dyehouse superintendent at Milpac Dyeing Co., Inc., Brooklyn, N. Y., is **William H. Espelin,** previously associated with the Ciba Company, Inc.

In Atlanta, Ga., newly named exeoutive vice-president of Fulton Bag & Cotton Mills is **Clarence E. Elsas** who heads the textile division, created as a result of the merger of the firm's former mills and textile divisions. **Fred G. Barnet,** formerly manager of the bag division at St. Louis, Mo., has been named vice-president and general manager of the textile division, and **J. F. Greene** as general manager of textile manufacturing. **E. M. Hornsby,** formerly in charge of the New York office, replaces Mr. Barnet at St. Louis.

Appointment of **R. Power Fraser, Jr.,** to the position of general production manager in charge of all manufacturing operations of American Felt Co., Glenville, Conn., has been announced. Mr. Fraser continues as manager of the company's Newburg, N. Y., mill and now supervises production operations at plants in Glenville, Franklin, Mass., Westerly, R. I., and Detroit, Mich.

Aberfoyle Manufacturing Co., Philadelphia, Pa., has elected treasurer **W. T. Galey, 3rd.** He is succeeded as vice-president in charge of

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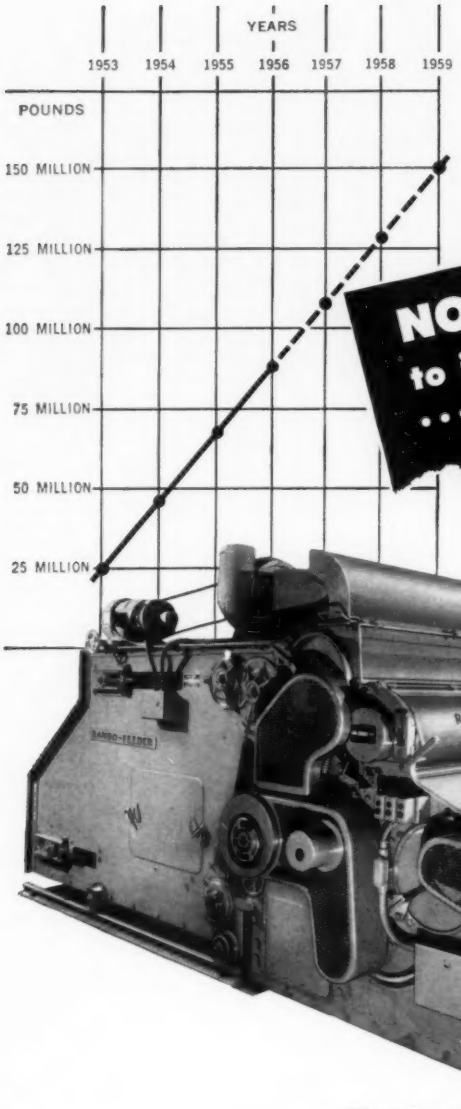

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to increase 600% in 6 years
. . . reaching 150 million pounds

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These ingenious machines were designed and built solely for the production of nonwovens. They produce a higher quality fabric, faster and more economically than by any other method.

The RANDO-FEEDER and RANDO-WEBBER produce a continuous, uniform, non-woven web with random orientation of fibers and square, even selvage over a wide range of fibers and thicknesses of web, without cross lapping or laminating.

Today RANDO-FEEDERS and RANDO-WEBBERS are producing such products as window drapes, bath mats, cloths, dress goods, automotive fabrics and interlinings in many countries in the world.

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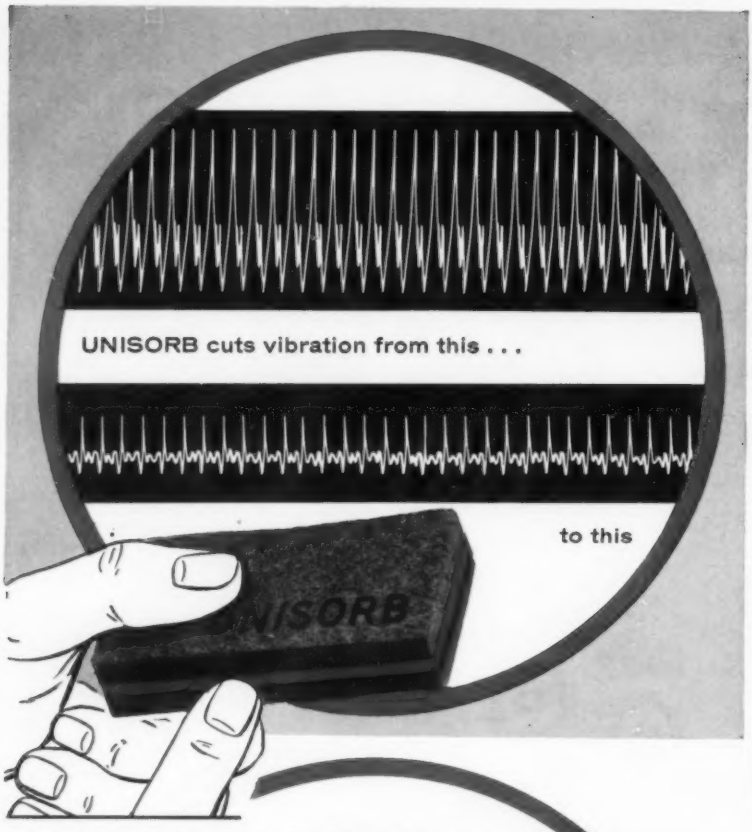

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Unisorb will reduce up to 85% of transmitted vibration, when properly loaded. Production men are amazed to see what this means to costs:

- **Greater operator efficiency, cuts fatigue.**
- **Sharply reduces noise level.**
- **Machines keep their accuracy, last longer.**
- **Maintenance on building and machines reduced.**
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When machines are mounted on Unisorb there are no holes to drill, no bolts or lag screws. Just cement the correct grade of Unisorb to the floor and to the machine legs — in a matter of hours you're ready to roll!

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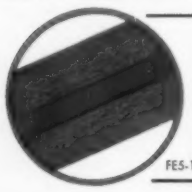

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FES-19

Personal NOTES ABOUT MEN YOU KNOW

production by **A. A. Hobbs.**

Charles F. Goldthwait, originator of the semi-elastic cotton gauze bandage and the differential dye test for maturity and processing quality of cotton, has retired from the federal service following nearly 50 years in textile research. Mr. Goldthwait will continue textile research work as visiting professor of textile chemistry with the Department of Textile Research, School of Textiles, N. C. State College of Agriculture and Engineering, Raleigh. N. C. For the past 15 years he has been engaged in cotton utilization research for the Southern Utilization Research Branch of the Agricultural Research Service in New Orleans, La.

Newly elected president and treasurer of Lehigh Spinning Co., Allentown, Pa., is **Walter R. Guthrie,** formerly vice-president and general manager.

At Berryton (Ga.) Mills, Inc., former vice-president and general manager, **A. B. Hammond,** has been named president, succeeding the late John M. Berry. **Mrs. Martin H. Bradshaw** is the new vice-president.

Dan River Mills, Inc., Danville, Va., have added to their board of directors three new members: **Oliver Iselin,** co-chairman of the Iselin-Jefferson board and a board member of South Carolina's Woodside Mills; **Floyd Jefferson,** co-chairman of the Iselin Jefferson board and a director of Iselin-Jefferson Financial Co., Inc., Woodside Mills, and Fitzgerald (Ga.) Mills Corp; and **Jarvis Cromwell,** president of Iselin-Jefferson Financial Co., and vice-president of Iselin-Jefferson Co.

Howard B. Jackson, formerly merchandising manager for Neisler Mills, Kings Mountain, N. C., has joined J. P. Stevens & Co., Inc., in the same capacity.

With offices at the Winnsboro (S. C.) Mills, **M. A. Kirkland** has been appointed assistant production manager of the Textile Division, United States Rubber Co. **Louis M. Boulware,** formerly a member of the textile division production management organization, has assumed the position of plant manager at Winnsboro: **M. H. Cranford,** formerly of Burling-

PRESTOW

...a new name for an old friend

You're going to see more and more of the name PRESTOW.

Every Stowe-Woodward roll with the exception of our special formulas such as Microrok, Sealskin, etc. will be called PRESTOW.

We hope you'll remember the name and use it; but more important, we hope you'll remember what it stands for . . . Stowe-Woodward roll craftsmanship . . . accuracy, consistency, fine finish, close control of density and crown . . . all of the factors which result in trouble-free performance on the machine.

Ask your Stowe-Woodward Sales Engineer about the advantages of PRESTOW rolls in your mill.

"RUBBER ROLLS with a REPUTATION"

STOWE-WOODWARD, Inc.

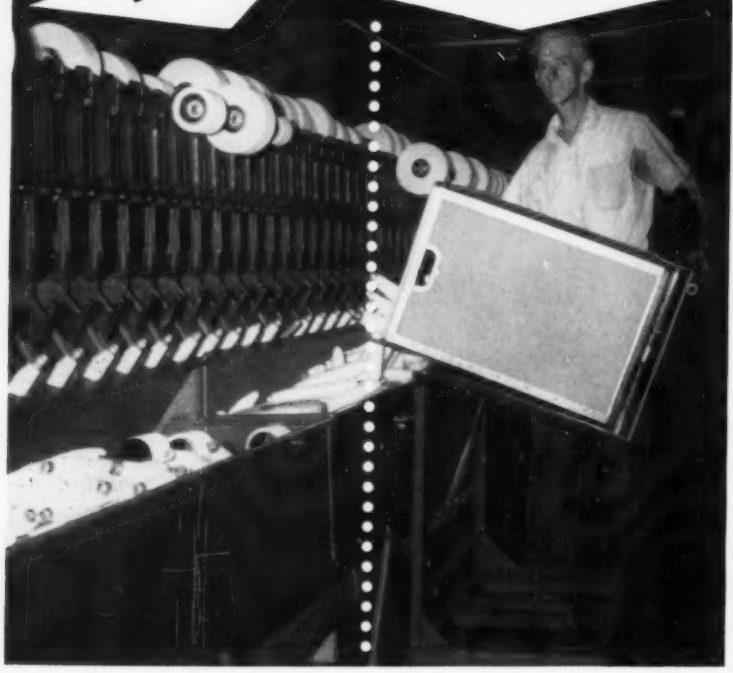
Craftsmen in rubber rolls

NEENAH, WISCONSIN • NEWTON 64, MASS. • GRIFFIN, GEORGIA

FISHER offers two new savings methods

SPOOLER TROUGH

WARP DUMP TRUCK



SPOOLER TROUGH

Doubles storage capacity on the spooler, where ducts are retained on floor. Equipped with floating bottom to keep yarn always at hand level. Wider trough opening makes easier loading without spilling. Trough may be pulled forward for easy cleaning of trough and spooler.

WARP DUMP TRUCK

Has built-in lifting device. Designed to be rolled onto truck from storage stand without lifting. Hydraulic piston holds box at desired height while being emptied into trough. Enables use of larger boxes. Requires only one operator for dumping.

See these and other Fisher Developments

BOOTHS 314 and 315

SOUTHERN TEXTILE EXPOSITION

REPRESENTATIVES: Carolina Supply Co., Greenville, S. C. Textile Specialty Co., Greensboro, N. C.; J. W. Davis, Columbus, Ga.; Thos. A. Davis, Columbus, Ga.; John C. Long, Dallas, Texas

FISHER MANUFACTURING CO.

MATERIALS HANDLING EQUIPMENT, TEXTILE

BOX 244 -- HARTWELL, GEORGIA

Personal NOTES ABOUT MEN YOU KNOW

ton Industries, Inc., has joined the firm as assistant to the plant manager.

John M. McSwain has been promoted to superintendent of Eastman (Ga.) Cotton Mills, succeeding **Mack D. Heaton** who has accepted a position with Columbia (S. C.) Mills Co.

J. R. Meikle, formerly general superintendent and vice-president of Rosemary Manufacturing Co., Roanoke Rapids, N. C., subsidiary of J. P. Stevens & Co., Inc., has been named vice-president and manager succeeding G. A. Berkstresser, who has resigned. **J. E. Shaw** is new general superintendent, and **V. E. McDowell** has been appointed assistant plant superintendent.

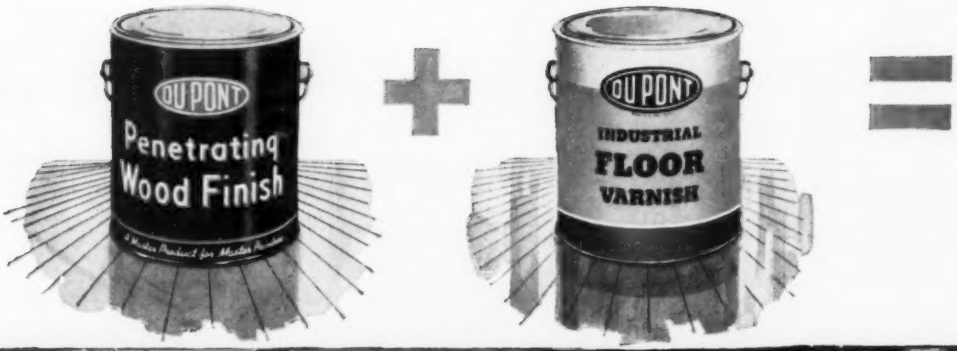
At Callaway Mills Co., LaGrange, Ga., **Jack O. Middleton** has joined the product development department of the research and development division as a textile technologist. **W. Keith "Skeeter" Wilson, Jr.,** of the spooling department in the Milstead (Ga.) plant, has assumed his duties as community center supervisor in Milstead.

Ernest Miller, formerly with Amerotron Corp., has been named sales representative for the newly formed Greensboro (N. C.) Finishing Co., which was formerly Greensboro Finishing Plant. Mr. Miller will have his headquarters in New York.

Leslie E. Schildein has become personnel director of The Kendall Co. with offices in Boston, Mass. Succeeding him as personnel director of the Kendall Cotton Mills division is **J. D. Pool,** who has served as assistant to the works manager and as head of the industrial engineering department at the Charlotte, N. C., office. * * * **H. K. Hallett,** general manager has announced that he will retire at the end of 1956, and **L. A. Savage,** works manager of the cotton mills division, has been named his successor. Mr. Savage, in turn, will be succeeded by **Jack B. Baker,** manager of the company's Pelzer, S. C., plants, and **W. Herman Taylor** will become manager at Pelzer.

After 47 years of continuous employment with Easley (S. C.) plant of Woodside Mills, Greenville, S. C.,

(Continued on page 32)



The Du Pont Floor Finishing System

★ make floors easier and faster to clean
★ lengthens floor life
★ lowers floor maintenance costs
★ improves seeing conditions

Mill and plant owners everywhere are enthusiastic about the many advantages offered by Du Pont's Industrial Floor Finishing System. Developed after years of research, this system consists of a first coat of Du Pont Penetrating Wood Finish that thoroughly seals the wood, and a finish coat of high-gloss Du Pont Industrial Floor Finish.

It's an unbeatable team of floor finishes that's bound to give your floors extra protection against hard wear and high humidity.

Practical experience in hundreds of plants has shown the value of the Du Pont Floor Finishing System in reducing over-all maintenance costs, and in providing better seeing conditions and improved housekeeping. To discover what the Du Pont Industrial Floor Finishing System can do for *your* floors, mail the coupon today.

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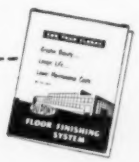
Industrial Finishes

Chemically engineered to do the job better



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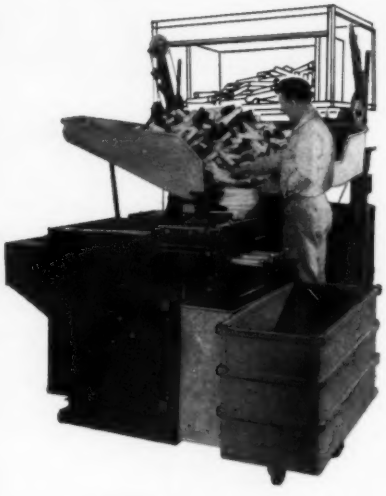
AT THE SOUTHERN TEXTILE

SEE THE

BOBBIN
CLEANING
and
HANDLING
EQUIPMENT

- Type L
  Loom Bobbin Cleaners
- Termaco Bobbin Box Hoist
- Termaco Bobbin Selector
- Termaco Bobbin Feeders

See the first public demonstration of the new Termaco Bobbin Feeders—
One operator feeding two loom bobbin cleaning machines.

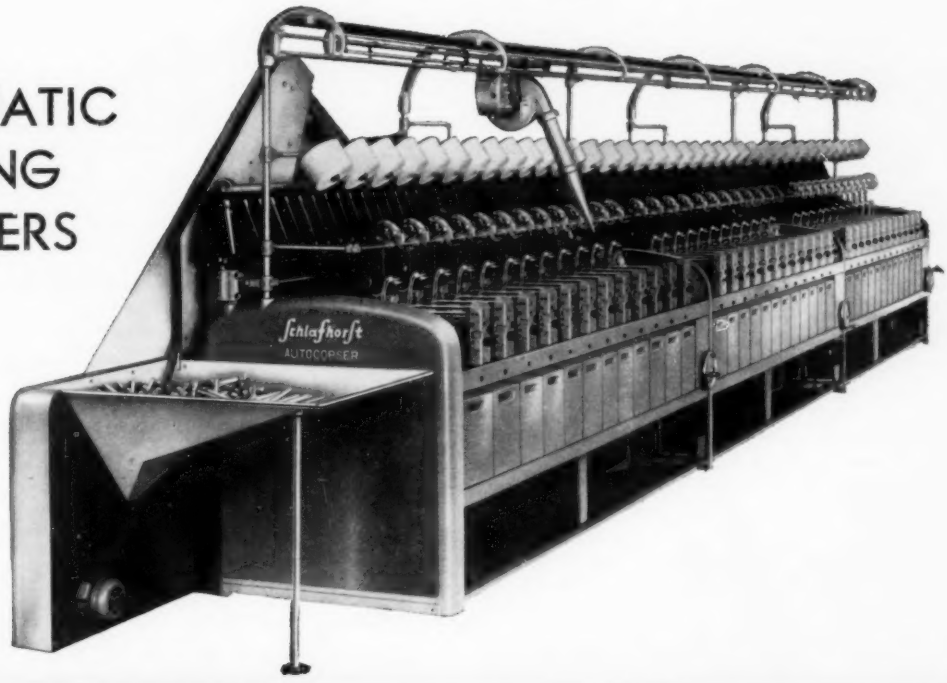


- Type M
  Roving Bobbin Cleaner
- Termaco Bobbin Box Hoist

EXHIBITION—ANNEX NO. 3

WORLD'S MOST EFFICIENT

AUTOMATIC FILLING WINDERS



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AUTOMATIC FILLING WINDER

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Sold and Serviced
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Terrell

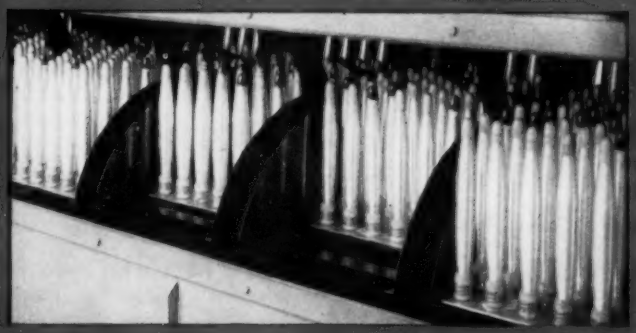
MACHINE COMPANY, INC
CHARLOTTE, N. C.

In addition to the INDIVIDUAL BOXING ATTACHMENT proved on over 2000 spindles in American mills, we now demonstrate for the first time in the United States the

REVOLUTIONARY, NEW

Individual

PINBOARD ATTACHMENT



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The SMM ROLLER-BEARING SPINDLE

For Higher
EFFICIENCY
and Greater
ECONOMY

20,000 Hours and more with same oilfilling.

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No edge pressure on the rollers. No chafing corrosion.

•

Amazingly smooth running results in less thread breakages, in a more uniform quality of thread . . . permits higher speeds and increased traverse.

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Minimum Maintenance

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Minimum power consumption.

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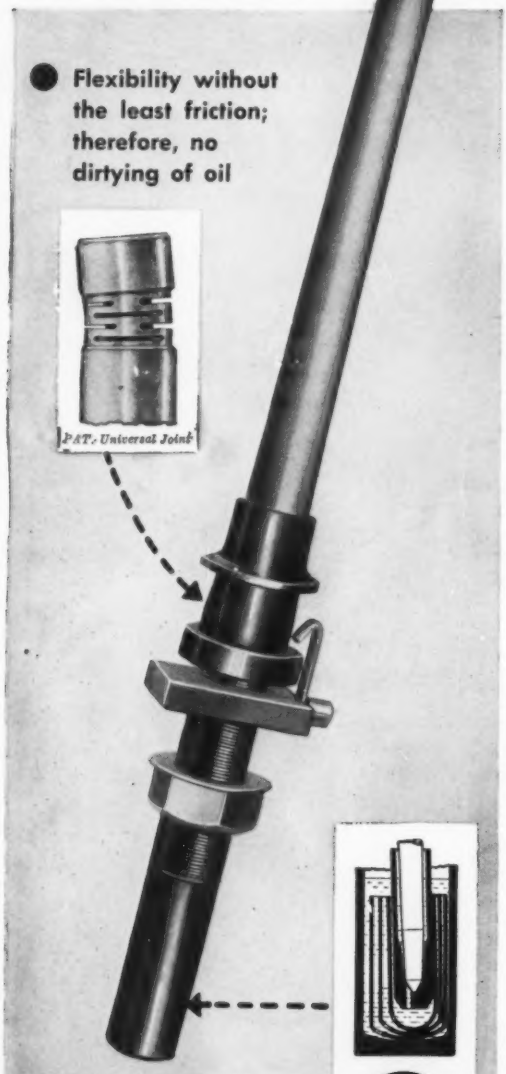
Built for any kind of bobbin. For twisting, spinning and throwing. For light and heavy duty.

•

SMM SPINDLES step up your output-per-manhour and give you highest return on your spindle investment.

● **Flexibility without the least friction; therefore, no dirtying of oil**



● **Exclusive oil cushioning. Very gentle and very effective**

Spindles, Motors and Machines Ltd.

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NORTH AMERICAN REPRESENTATIVE
GUBELIN INTERNATIONAL CORPORATION
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H. PHIL WORTH
Box 1555 • Greenville, S. C.

Personal NOTES ABOUT MEN YOU KNOW

(Continued from page 28)

Fred Williams has retired as personnel manager and safety director.

Daniel A. Randall is the new general manager of Greenwich Printing and Dyeing Co., East Greenwich, R. I., succeeding Paul Fabien.

The board of directors of The National Federation of Textiles, Inc., New York, N. Y., has designated **Edmund Wellington, Jr.** as secretary of the federation. Irene Blunt continues as executive director and treasurer, with Mr. Wellington as general assistant and in charge of special group activities. He also serves as secretary for the committee on quality control.

Edgar Smith is now resident manager of Maine Spinning Co., Skowhegan, Maine.

In the recent meeting of Wiscassett Mills Co., Albermarle N. C., **George A. Batt** was elected to the board. **R. L. Holbrook,** treasurer, was made vice-president.

Drayton Mills, Spartanburg, S. C., announce the appointment to plant manager of **T. C. Jolly, 3rd.**

Obituaries

Elias D. Cohen, 74, senior vice-president and director of National Starch Products, Inc., New York, N. Y.

John R. Horton, 44, assistant overseer of the spinning department at The Springs Cotton Mills, Lancaster, S. C.

Jesse Dobson Long, 68, retired assistant treasurer of P. H. Hanes Knitting Co., Winston-Salem, N. C.

James Edward McGee, 66, former vice-president and assistant manager of Rosemary Manufacturing Co., Roanoke Rapids, N. C.

Jacob Ratner, 67, former president of Steinway Ribbon Mills of New York, N. Y.

Jack Vincent Scott, 51, executive vice-president of Quality Weaving Co., Philadelphia, Pa.

Murray P. Stroud, 70, president of Horner Corporation, Eaton Rapids, Mich.

Harold A. Sweet, director of industrial division of Refined Products Corp., Lyndhurst, N. J.

William H. Whitcomb, secretary of the D-13 Committee, the American Society for Testing Materials.

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Improved LOOM PARTS

just what is HFL Engineering?

We define it as: "The intelligent blending of creative ideas with the wisdom that comes from experience"

In designing and making loom parts, it has been the undeviating purpose of this company for 69 years to improve them . . . *to make them better.* Sometimes the improvement is in the form of a design change, sometimes the improvement primarily consists of using better materials — and sometimes, of course, it is a combination of both.

In this day of increasing cost per yard of woven goods — due to the high cost of labor and equipment — it is just good business sense to reduce your purchases of frequently-replaced loom parts *by using parts that are properly designed and engineered.*

Our competent Engineering Staff, working directly with many of the leading Overseers of Weaving of the country, is in constant contact with actual loom parts problems. Each HFL part, therefore, is individually tailored for its own particular requirements.

We offer you this service. Why not take advantage of our modern highly-developed facilities for producing proven parts . . . known everywhere as "HFL Improved Loom Parts"?

We welcome your inquiries.

Herman J. Malafey, Chief, Inspection Dept.

An HFL engineer for nearly 40 years, he served as "right hand engineer" to Homer F. Livermore in developing the HFL Improved Loom Parts which laid the foundation for the company's outstanding reputation. No loom part today can get by Mr. Malafey's department unless it's *right!*

L. George Urquhart, Chief Engineer

Joining H. F. Livermore Corporation in 1947, Mr. Urquhart came to us with a rich background of technical and engineering experience gained entirely in the textile industry. After taking post-graduate work at Worcester Polytechnical Institute, and at Rhode Island School of Design, he spent several years in the engineering departments of two of the country's leading manufacturers of textile machinery.

He then served for a number of years in a textile engineering consulting firm, working on textile machine design and engineering, weaving problems, loom operation and efficiency. Mr. Urquhart and his staff of capable young engineers are responsible for the research and development work of the company.

Better because they're better engineered

HFL

IMPROVED LOOM PARTS

H. F. LIVERMORE CORPORATION

ESTABLISHED 1887

EXECUTIVE OFFICES & PLANT
BOSTON 34, MASS.

SOUTHERN DIVISION
GREENVILLE, S. C.

now it can be told!

METRO-ATLANTIC'S Emboset — Z

TRADE MARK

the **NEWEST,** *the* **LONGER-EFFECTIVE, MORE DURABLE**

CYCLIC UREA RESIN PREFERRED *and* **USED** *by the Nation's Leading Finishers.*

After comprehensive field testing in numerous finishing plants, EMBOSET Z, the new and durable cyclic urea resin, has created a growing demand in the industry for its durable fibre reactant properties.

APPLICATION TO COTTONS:

EMBOSET Z on cottons displays very *low chlorine retentive* properties demonstrating that discoloration and tensile strength loss is negligible in bleaching. EMBOSET Z is a superior resin for "*minimum care*" finishes showing unequaled crease resistance and shrinkage control combined with a minimum loss in tensile strength. EMBOSET Z is a highly effective resin for mechanical finishing. It can be used in conjunction with Ranedare-R, Ranedare-S, and Ranedare-C — Metro-Atlantic's durable water-repellents for combination finishes.

APPLICATION TO RAYON and RAYON BLENDS:

On rayon and rayon blends, EMBOSET Z has demonstrated superior crease resistance, shrinkage control, plus the added feature of a full luxurious hand, while maintaining a negligible tensile strength loss.

EMBOSET Z possesses outstanding storage and bath stability. Perfect compatibility with all the common textile auxiliaries used in thermosetting finishes make it the SUPERIOR fibre reactant resin.

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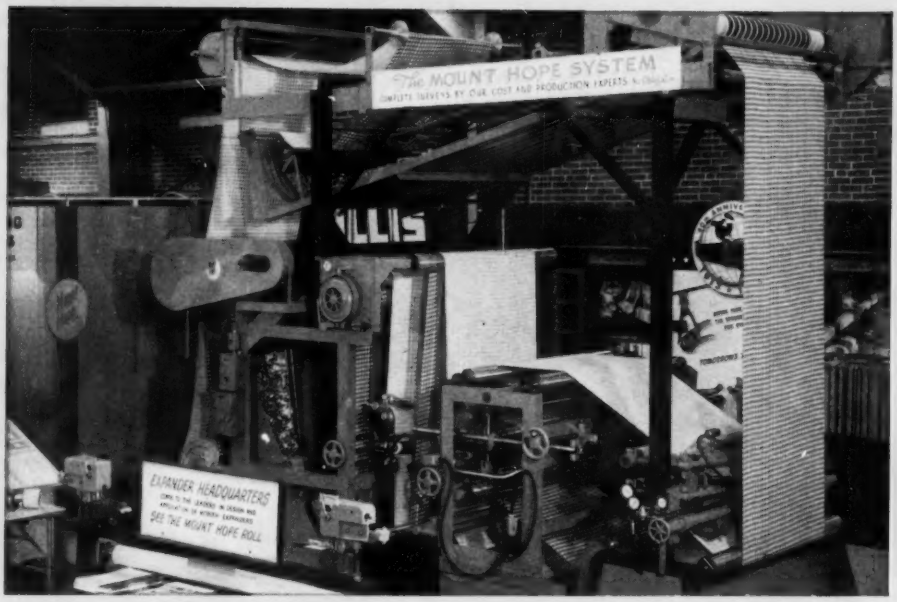
Mount Hope SYSTEM

Look to MOUNT HOPE for Increased Production Greater Profits



WE INVITE YOU TO SEE A RUNNING DEMONSTRATION

of components used in a Mount Hope System at the Greenville Show

BOOTH #114

In attendance:—
Mr. J. D. Robertson, President
Mr. William M. Gallahue, General Sales Manager
Mr. E. F. Slaughter, Factory Representative
Mr. P. H. Slaughter, Factory Representative

Take advantage of the opportunity to speak to our textile consultants. They will give you an explanation of how the MOUNT HOPE SYSTEM can help you.

Our textile consultants: Mr. S. A. Moffit
Mr. J. Basic

MOUNT HOPE
MACHINERY COMPANY
153 Fifth Street, Taunton, Massachusetts

New GIANT GRIP

(patent applied for)

Air-Loc® LOOM PAD

4-17-1

. . . see it at the Greenville Show.

1. It's a *lifetime* vinyl mount.
2. It's *impervious* to oil, ozone and detergents.
3. Insures *permanent* loom alignment.
4. You can re-use your mounts when looms are moved.
5. No bolting or cementing needed.

SEE NEW

GIANT GRIP (patent applied for)

Air-Loc® 4-17-1

at the Greenville Show-Annex 6

MANUFACTURED BY

CLARK, CUTLER, McDERMOTT CO., Franklin, Mass.

SOUTHERN REPRESENTATIVE:

YEOMANS TEXTILE MACHINERY CO.

Spartanburg, South Carolina Telephone: 6774

What the TEXTILE MILLS are doing

It has been announced that the Forge Village, Mass., plant of **Abbot Worsted Co.** will cease operations as present orders are exhausted. Over-competition in a diminishing market, and inroads made in the wool markets by synthetics were mentioned as reasons for the closing. Every effort will be made to find employment on an individual basis for the operatives, according to a statement by Wallace MacQuarrie, director of personnel. It may be possible in some cases, he said, to place qualified employees in the Seneca, S. C., plant.

The **Abney Mills** display at the first annual textile exhibit held during Annual Farm Week at Clemson College, August 13, included cotton drapery, cotton chintz, broadcloth drapery, cotton slub, corded broadcloth, cotton ripple, waffle cloth, embossed cotton, and print cloth, as

shown in the accompanying photo. Twelve other textile firms participated in the exhibit. * * * Sixty Abney Mills employees of Anderson and Belton, S. C., have received their certificates for completing the company-sponsored course in effective speaking and human relations.

With the recent addition of 1760 sq ft of floor space, **Bell Hosiery Co.**, Spruce Pine, N. C., now occupies approximately 10,000 sq ft. Fifteen employees will be added to bring total employment to 70 people.

The Greensboro (N.C.) Finishing Plant of **Burlington Industries, Inc.**, is undergoing conversion to a commission finishing operation to be known as Greensboro Finishing Co. No changes in personnel or in management will be made. Burlington

VICKERS® Variable Speed HYDRAULIC TRANSMISSIONS

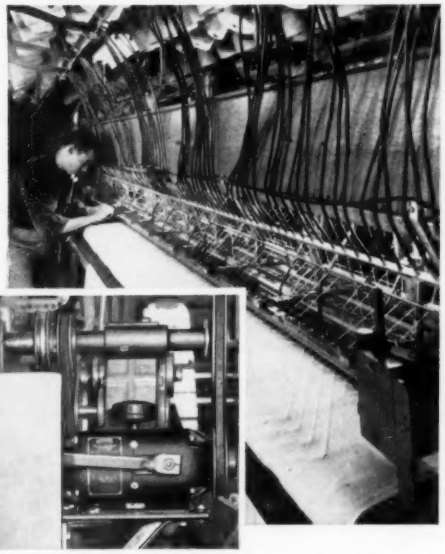
Their Rapid and Accurate Response to Input Signals

Means:

Handwheel Type Manual Control 3/4 hp

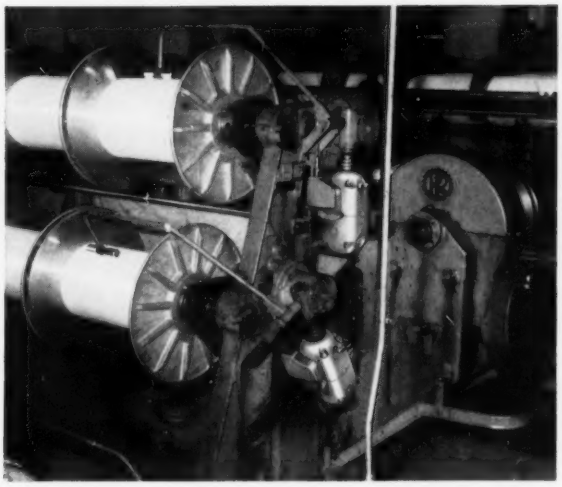
Servo Type Remote Control 3/4 hp

1 BETTER and FASTER TUFTING



Cabin Crafts, Inc., Dalton, Georgia, makers of tufted textiles, uses Model TR3 Vickers Hydraulic Transmissions to *accurately control the varying lateral position* of the cloth fed at a fixed rate to the fixed position needles that do the tufting. Automatically, the continuous and accurate speed change enables them to manufacture varying patterns in tufting not practical by conventional methods of speed control. New patterns and old patterns alike can be made better and faster because of the extremely sensitive response of Vickers Hydraulic Transmissions to input signals.

2 REDUCED THREAD BREAKAGE



At the E. Richard Meinig Co., Reading, Penna., Model TR3 Vickers Hydraulic Transmissions are used to drive beam rolls of cotton or nylon filament into knitting machines. *Tension of the thread is accurately controlled* due to the infinitely variable speed and the rapid, precise response of the transmissions to input signals. Thread breakage is reduced to a minimum, resulting in increased production, better quality and pattern control. Also, it is possible to run elastic materials on a standard machine with this modification. Maintenance has been negligible since the installation of these TR3 Transmissions in 1948.

WHAT CAN THEY DO FOR YOU ?

There are numerous other applications in the textile industry where the precise control of variable speed or tension provided by Vickers Variable Speed Hydraulic Transmissions means a better product at a reduced cost. Additional important advantages are automatic overload protection that prevents damage to the machine and the virtual absence of maintenance and downtime. The TR3 is available with a Servo (for use with V dancer rolls, cams, pattern wheels, etc.) or manual control as shown at upper right. *Write for Bulletin 47-408.*

VICKERS INCORPORATED
DIVISION OF SPERRY RAND CORPORATION
ADMINISTRATIVE and ENGINEERING CENTER
Department 1554 • Detroit 32, Michigan

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7395

ENGINEERS AND BUILDERS OF OIL HYDRAULIC EQUIPMENT SINCE 1921

JENKINS' METLKOR®
BETTER BRUSHES FOR BETTER COTTONS

BRUSHING MACHINE

The widening uses and demands for cotton over past decades has created a number of new problems in production and finishing. M. W. Jenkins' Sons has designed and developed a special line of brushes to solve these problems. The results of this experience, research and development, in cooperation with leading textile mills and machinery manufacturers are available today in the highly efficient patented Jenkins' METLKOR brush.

This brush, with a permanent metal core, can be set with any bristle and can be rebristled when worn. Bound in place with corrosion-resistant metal and sealed in with solvent-proof plastic cement, the Jenkins' METLKOR brush is moisture-proof, acid- and alkali-resistant, will not sag, split or get out of alignment, is true balanced.

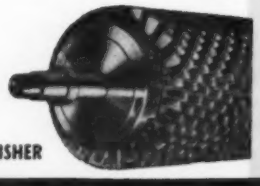
METLKOR brushes outlast other kinds of brushes and, in terms of service, are the most economical.

Whether you have a standard or special brush problem, Jenkins will manufacture to your specifications and needs, the right brush for the right job.

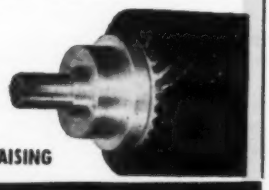
LIFEWOOD® *for wood core brushes and lags.*

OTHER METLKOR BRUSHES FOR COTTONS:

CARDING • SINGEING • BRUSHING PRIOR TO PRINTING • PRINTING BLANKET SCRUBBER, WASHER AND DRIER • BACK GRAY SCRUBBER • SOAPING • FURNISHER BRUSH CLEANING



FURNISHER



SHEAR RAISING

M. W. JENKINS' SONS, INC.

Over Three-Quarters Century of Pioneering Brushes for Industry.

Cedar Grove, Essex County, New Jersey

TELEPHONE Verona 8-5327

What the TEXTILE MILLS are doing

will gradually transfer its work to other units of the firm and make way for increasing amounts of work to be done for private firms. The new company will continue to finish synthetics and blends.

The Wilsonville, Conn., plant of **Best Value Mfg. Co.** is now in full production under Arthur Shook, manager, and Arnold H. Bates, superintendent. It was formerly operated under the name of Israel Putnam Woolen Mills.

Work is under way in a major rearrangement of machinery and processes at the Karastan Rug Mill of **Fieldcrest Mills, Inc.,** Leaksville, N. C. The changes already made, and those scheduled to be made, are designed to give the plant increased volume through greater operating efficiency, improved materials handling, and better use of space and buildings. The finishing, carving, and carpet inspection departments have been moved to the first floor adjacent to the shipping department. The former finishing space is to be used for storage for dyed yarns, and for winding operations. Broadloom storage has been consolidated in the new K-1 warehouse. Loading dock space has been increased to facilitate loading five trucks at a time. Previously the limit was two. Approaches and streets inside and outside the plant fence have been improved to expedite vehicular traffic. Streamlining the setting and burling departments is planned as the next major move. • • • The Bedspread Mill, Spray, N. C., has won first place in a statewide safety contest sponsored by the North Carolina Cotton Manufacturers Association. The plant has operated for one year without a disabling injury.

La France Industries plans to increase production of plush fabrics at its Cheney Bros. plant in Manchester, N. H. Production of frieze upholstery fabric will be discontinued in Manchester and initiated in the Pendleton, S. C., plant.

Union Mfg. Co., Frederick, Md., was recently purchased by **Kenosha Full Fashioned Mills, Inc.,** Kenosha, Wis., providing the Kenosha firm with seamless hosiery production facilities. Production at Union will be

(Continued on page 42)

Naugatuck Butadiene-Styrene Latices

Made in our own synthetic rubber plant, Naugatex® R-S latices are characterized by excellent mechanical stability, good color and superior aging. In general, their particle size is considerably smaller than that of natural rubber latex.

By varying the ratio of styrene to butadiene, the molecular weight of the polymer, the type of emulsifier system and the temperature of polymerization, Naugatuck chemists have given these Naugatex latices a variety of characteristics not possible in natural latex. The following specific types are in wide demand for pile fabric sizing, fiber binding and tufted carpet backing applications:

NAUGATEX 2000—A medium-solids, "hot" latex of about 50% styrene and of an intermediate Mooney viscosity. For fabric sizing and cotton carpet backing.

NAUGATEX 2002—Similar to 2000 except for higher solids and larger particle size. For fabric sizing and carpet backing.

NAUGATEX 2714—Medium-solids, high-styrene latex. For blending with natural or synthetic latex to give firmer hand, stronger tuft lock and better abrasion resistance.

NAUGATEX 2105—A high-solids, "cold" latex of about 25% styrene and a Mooney viscosity of 140. For fabric and carpet backing and for binding fibers.

NAUGATEX X-767—Similiar to 2105 but 50% styrene ratio raises tensile strength. High loading capacity makes it very desirable for textile and rug applications.

For more details, or for dependable technical assistance in the application of rubber latices, contact the branch office or compounding plant nearest you.

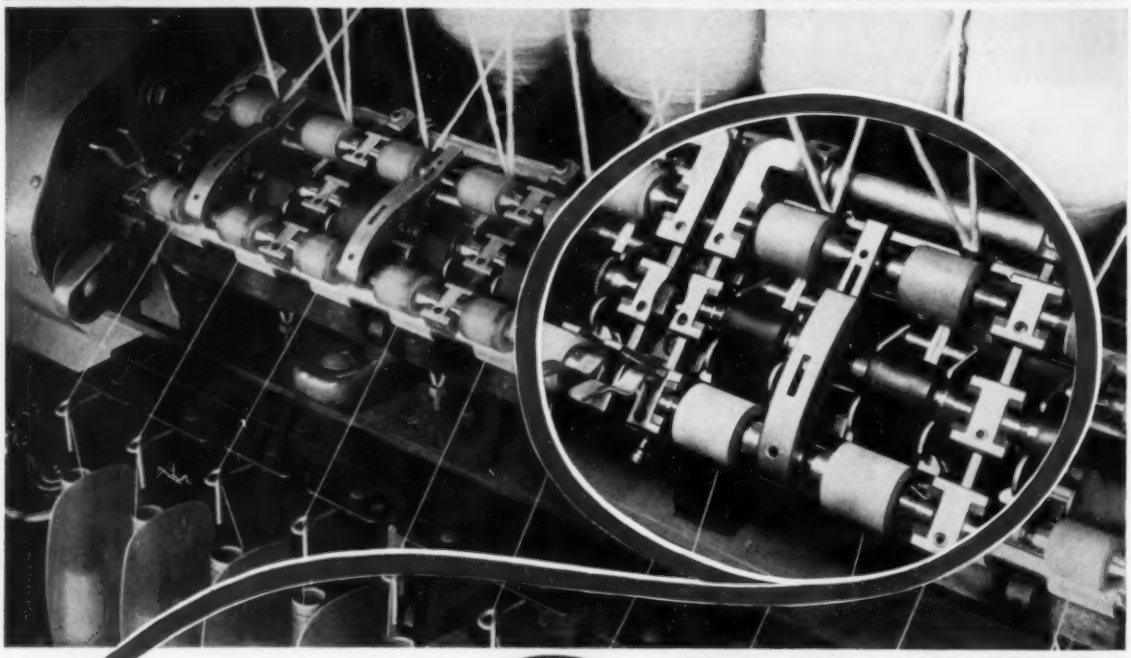
Leading name in Latex for the Textile Industry

United States Rubber

Naugatuck Chemical Division

Naugatuck, Connecticut

BRANCHES: Akron • Boston • Chicago • Memphis • New York • Philadelphia • **Mfg.:** Naugatuck • Gastonia • Los Angeles • **CANADA:** Latex Div., Dominion Rubber Co., Ltd., Montreal • **Cable:** Rubexport, N. Y. Rubber Chemicals • Synthetic & Reclaimed Rubber • Plastics • Agricultural Chemicals • Latices



SAVE

ON PRODUCTION COSTS AND INCREASE QUALITY

WITH THE

BOULIGNY TRU-DRAFT

- No gradual build-up of drag as experienced with anti-friction rolls
- More uniform yarn—due to concentricity and free running
- 5/8" dia. rolls afford good cushion — no buffing problems
- Low bearing replacement cost
- Reduced cleaning
- Reduced oiling
- Perfect alignment

2,769,500 spindles are now operating with Whitehead Permalube cap bar nebs and saddles and Bouligny hardened steel rolls.

The Mills in which this equipment is installed report a 30 to 40% return on their investment.

The Bouligny Tru-Draft System is now complete from roller beam up—with Drafts up to 50.

Our trained technical staff can assist you on any spinning problem.

BE SURE TO VISIT OUR BOOTH AT THE SOUTHERN TEXTILE EXPOSITION GREENVILLE, S. C. OCT. 1st TO 5th

HARDENED STEEL ROLLS • ROLLER STANDS • PERMALUBE NEBS AND SADDLES • CRADLES • COMPOUND GEARING
CYLINDERS • CYLINDER BALL BEARINGS • BALL BEARING TENSION PULLEYS • LIFTER RODS AND BUSHINGS
PERMALITE SEPARATORS

the BOULIGNY COMPANY

DIVISION OF R. H. BOULIGNY, INC.
CHARLOTTE, N. C.

their wrinkle resistance is the same with

RHONITE R-1

The way these dresses look after the skimpiest of ironings, you'd think they were twins too! Yet one's been shrugging off wrinkles during a lifetime of washdays. Which all goes to show that cottons—or blends of cottons—hold onto the wrinkle-resistant enthusiasm of their youth when treated with RHONITE R-1 resin. Our wise little owl can see this spells luxury wear with the briefest of care.

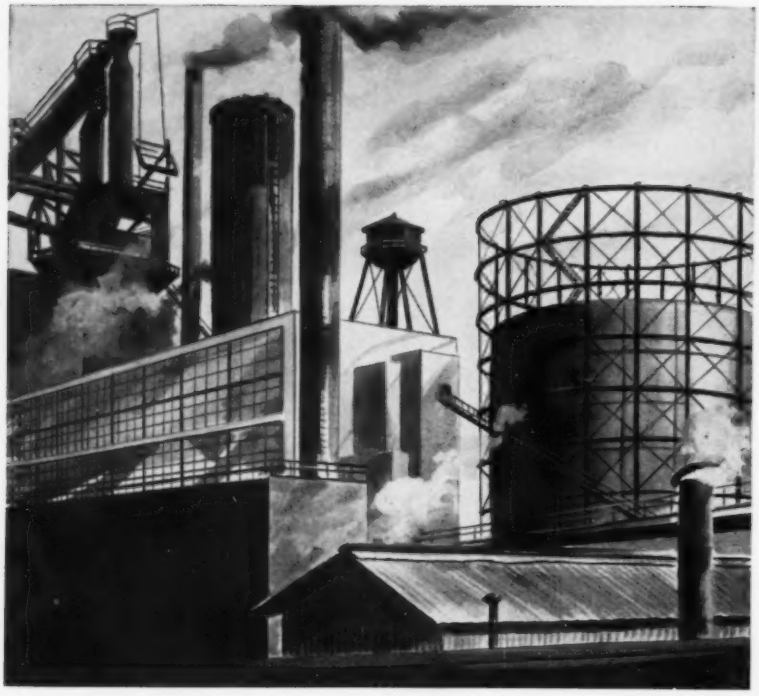
RHONITE *is a trade-mark, Reg. U.S. Pat. Off. and in principal foreign countries.*

Chemicals for Industry

ROHM & HAAS COMPANY

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Representatives in principal foreign countries



This Is the Year to Paint Your Plant

PRODUCTION BOOM IS COMING: PAINT NOW WHILE THERE'S TIME

You know what happens to plant maintenance when plants are operating at capacity — it just gets "put off." And the longer it's put off, the more costly it is to handle. In fact, if you postpone painting just one year, it can cost you double or triple today's cost!

Important days are just ahead. Prepare for them *now*. Repair and restore masonry surfaces, stop corrosion of iron and steel, improve "seeing conditions" to boost morale and production. And the way to start is to consult America's maintenance coating specialists. Use the *free* plant survey service of Truscon Laboratories, who for nearly fifty years have led the Industry in maintenance know-how.

Keep this in mind. There is no single coating for all maintenance problems. Different surfaces, different conditions require different protective coatings. Here's where you can save money — by using specialized coatings that have greater corrosion resistance, greater weather and wear resistance. As a result, you paint less often. Your Truscon representative will provide prompt plant inspection, color guidance and coatings consultation. No obligation to you. Absolutely. Send coupon now for immediate action.

See our exhibit—19th Southern Textile Exposition, October 1 thru 5 —Booth 325, Textile Hall, Greenville, South Carolina

TRUSCON *Laboratories*

Industrial Maintenance Division of Devoe & Raynolds Co., Inc.

Resists the Penetration of Water — Protected with TRUSCON

Truscon Laboratories
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Firm _____
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What the TEXTILE MILLS are doing

(Continued from page 38)

doubled by the addition of machinery. No other changes are contemplated. William Stutz, former general manager at Union, has been named vice-president in charge of production; A. J. Leff, already president of Kenosha, is now president of Union.

Empire Rayon Yarn Co., Inc., has begun construction of a new facility in Mt. Vernon, N. Y., to be finished in March or April of next year. It is a one-story, 80,000 sq ft building which will house cake dyeing equipment and new twisting equipment for the production of novelty yarns.

The new felt mill of **F. C. Huyck & Sons** at Aliceville, Ala., was opened on June 20. More than 2000 guests

attended dedication. C. W. LaDow will manage the new facility which produces felts and compressive shrinkage blankets.

The third new manufacturing plant of **Catalina, Inc.,** within three years was opened on August 1 at 131 North Gilbert St. in Fullerton, Calif. The one-story brick building, of cantilever construction, contains 24,000 sq ft. Approximately 300 people will be employed on a one-shift basis when full production is assumed. The plant is designed to produce 15,000 finished ladies' woven elastic swim suits per week. Jack McCauley is superintendent.

A new plant is being built in Rolling Fork, Miss., by **Columbia Narrow Fabric Co.** About 100 people will be employed in the new operation.

The operations of Conover (N.C.) Knitting Co., and Hutchens Hosiery Mills, Inc., Newton, N. C., are being combined into a corporation known

(Continued on page 46)

"GULFSPIN keeps our spindles spinning clean and free"

*says T. F. Snipes, Overseer of Spinning of this prominent southern mill**

"WE have used Gulfspin for almost three years and have found that our 34,000 spindles stay clean with practically no sticking," says Mr. Snipes. "Also Gulfspin doesn't thicken after long usage."

In addition to the benefits mentioned above, Gulfspin provides effective protection against rust—and it reduces power costs because of its ability to maintain its original viscosity after many months of service.

You'll find that the use of Gulfspin will contribute to smoother spindle operation, fewer ends down, and rock-bottom maintenance and power costs.

Contact a Gulf Sales Engineer and let him demonstrate Gulfspin's superiority on your frames. Consult the telephone directory for the number of your local Gulf office. Visit the Gulf Booth—No. 211—at the Southern Textile Exhibition, Greenville, South Carolina.

**Name furnished upon request.*

GULF

GULF OIL CORPORATION • GULF REFINING COMPANY

1822 Gulf Building, Pittsburgh 30, Pa.

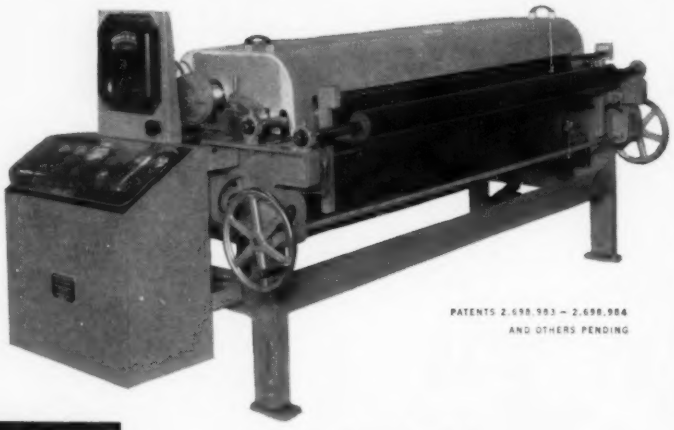
PERFECT SIZING "under cover"

will keep YOUR LOOMS in "the race"!

198 GRIFFIN SIZE APPLICATORS NOW SUPPLY LOOMS . . .

- WEAVING MORE YARDS
- MAKING BETTER CLOTH
- USING LESS SIZE
- HAVING LOWEST COST

See Our Display at the Textile Show
Space 501



PATENTS 2,698,983 – 2,698,984
AND OTHERS PENDING

IRA L. GRIFFIN & SONS
P. O. BOX 1576 CHARLOTTE, N. C.

LICENSEE: (non-exclusive)
WEST POINT FOUNDRY & MACHINE CO.
West Point, Ga.

ATTENTION MILL EXECUTIVES!

Here's the answer to NO COST upkeep of your Mill and Village winter lawns!

WINTERLAWN
THE ORIGINAL
GRASS COLOR CONCENTRATE

WINTERLAWN COLOR CONCENTRATE

"The miracle substance that gives you
a green lawn—all winter long."

No Rye Grass Seed **No Fertilizer**
No Watering **&** **No Mowing**

Before spraying, grass must be dormant after killing frost. Grass must be dry. Power or hand spray with only one application. For complete information see your Seedsman or Garden Supply Dealer.

A product of
The Graniteville Co.

WINTERLAWN SALES CORPORATION
Augusta, Ga.

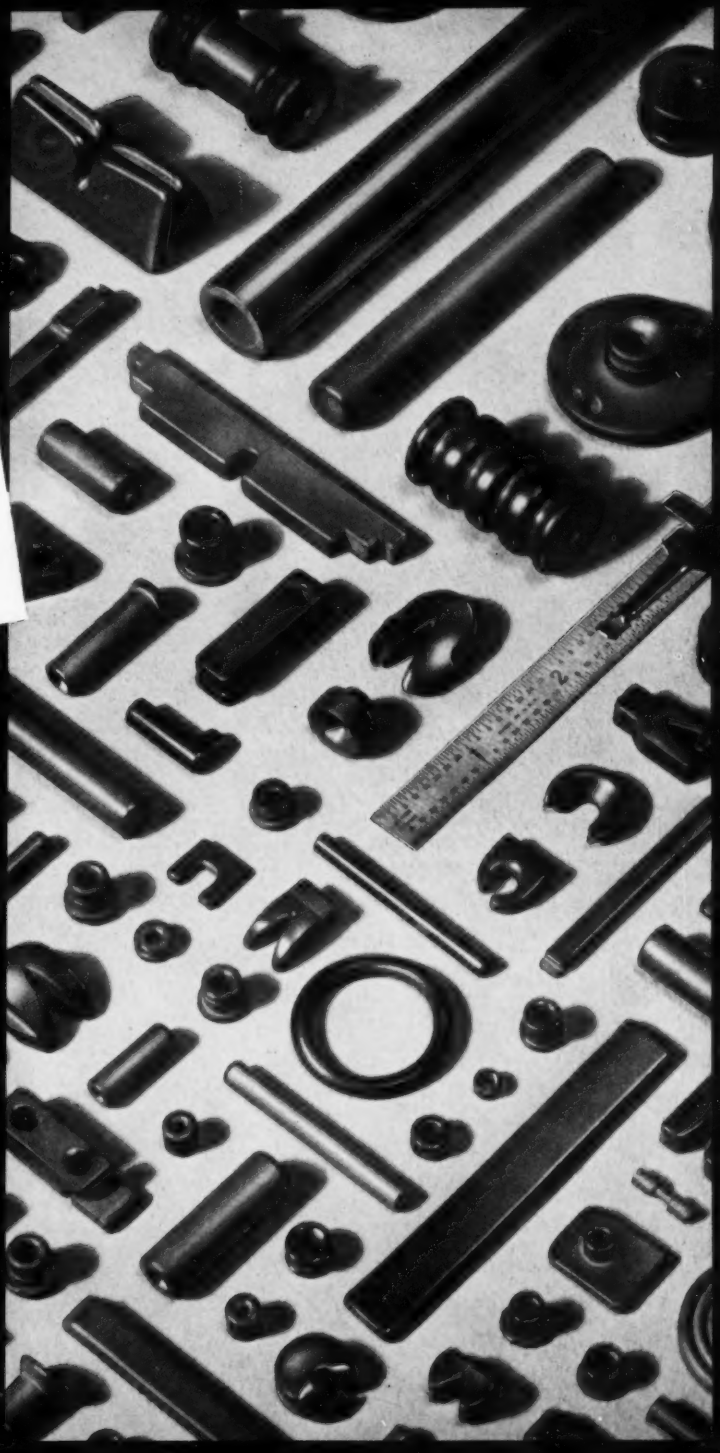
ALSIMAG® 193

ELECTRICALLY CONDUCTIVE THREAD GUIDES

(U. S. Patent No. 2,369,266)

RECOMMENDED by leading producers of synthetic yarns and by leading manufacturers of textile machinery to assist in the control of static electricity and to produce better quality yarn. Stock designs available for most equipment. Custom made at reasonable cost for special requirements.

Test samples from our files on request.



55 TH YEAR OF CERAMIC LEADERSHIP

AMERICAN LAVA CORPORATION

A Subsidiary of Minnesota Mining and Manufacturing Company

CHATTANOOGA 5, TENNESSEE

SALES ENGINEERS IN THESE U. S. CITIES (see your local telephone directory): Chattanooga, Tenn. • Cranston, R. I. • Dallas, Tex. • Greenville, S. C. • Los Angeles, Cal. Newark, N. J. • St. Paul, Minn. • S. San Francisco, Cal. CANADIAN REPRESENTATIVE: Ian M. Haldane & Co., P. O. Box 54, London, Ont. ALL OTHER COUNTRIES: Minnesota Mining & Mfg. Co., Internat'l. Div., St. Paul 6, Minn.

See our Booth—Spaces 453 & 454—Southern Textile Exposition Greenville, South Carolina—October 1-5

New Flyer Performance

Only $1.25

Restore your flyers to new performance efficiency — actually better than new in some respects.

A FULL Ideal Flyer Reconditioning** job includes services not available anywhere else. Barrel hubs are *die-swaged*, full length. All flyers sit at same height on spindles. Selecto-Speed* Balancing makes *all* of your flyers run, with the precision of a West Point Cadet parade line, *at your operating speeds.* The Ideal tag-and-rust resistant finish is superior to any other for stopping slubs and tags.

If your flyers wobble — your roving jerks — ends run over at top or bottom of the bobbin — or show any other sign of wear, it will pay you to get full information on Ideal Flyer Reconditioning Service.

**Ideal offers partial services — comparable to those available elsewhere — starting at 48c.

A Realigned
B Die-swaged full length
C Slots regauged
D Hollow leg repaired
E Ends rebuilt and refinished
F Pressers blocked
G Flyers blocked
H Rebuilt or replaced

*Patented

Ideal Machine Shops, Inc., Bessemer City, N. C.

Continuous Service to Textile Mills Since 1925

What the TEXTILE MILLS are doing

(Continued from page 42)

as **Hutchens Mills, Inc.,** at Newton. Albert L. Hutchens, president, Hutchens Hosiery Mills, Inc., will be general manager of the combined operations with offices in Newton. Adrian L. Shuford, president, Conover Knitting Co., will continue to maintain his office in Conover. Machines from Conover are now housed in a 9500 sq ft addition to the Newton plant. Employment will be 250-275 people, including the personnel who operated the Conover plant. The combination will produce children's and men's hosiery. Cralle Hosiery Co., New York, will continue as sales agent for the mills.

The assets of **Alabama Mills, Inc.,** with headquarters in Birmingham, Ala., have been acquired by **Dan River Mills, Inc.,** Danville, Va. Also, Dan River has purchased Iselin-Jefferson Co. William J. Erwin, president and director of Dan River, and Lawrence W. (Chip) Robert, chairman of Robert & Co. Associates, Atlanta, Ga., are now directors of Iselin-Jefferson.

The manufacturing facilities of **Golden City Hosiery Mills, Inc.,** Villa Rica, Ga., destroyed by fire in early July, are being rebuilt. The new one-story brick building will contain 6000 sq ft of floor space on the main floor, and an additional 2000 sq ft of basement. Operations were scheduled to begin in early September at the pre-fire capacity. The plant produces men's hose.

Barclay Knitwear Co. is scheduled to soon begin operations in the plant buildings No. 1 and No. 2 of the former Waterville Textile Mills, Waterville, N. Y. The plant buildings were recently acquired by the Waterville Business Men's Association, and will be leased for five years to Barclay, which is under the direction of Michael Pauker. About 200 people will be employed.

Supreme Knitting Machine Co., Inc. has established a new subsidiary, **Supreme Novelty Yarn Co., Inc.,** at 94-02 104th St., Ozone Park, N. Y. The new firm is equipped with modern novelty yarn manufacturing machinery for the production of yarns from natural fibers, blends, and synthetics. Chenilles, nubs, boucles, and a wide

(Continued on page 50)

NOW!

use all the size you need with nylon yarn

it stays flexible with

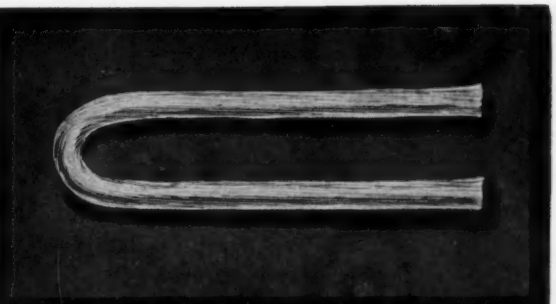
NOPCOSIZE® N

Now it is possible to apply extra heavy sizing to low twist nylon yarn—even producer's twist—and still get flexibility. Nopcosize N is *internally plasticized* to permit you the greater depth of size protection needed to avoid filament breakage.

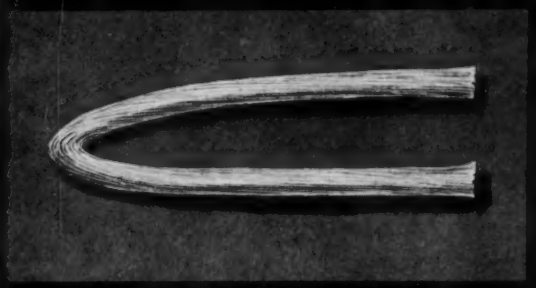
Mill tests on producer's twist yarn have proven eminently satisfactory.

Try this outstanding size on your warps and prove it to yourself.

Nopco Chemical Company, Harrison, N. J.



SIZED WITH 2¼% NOPCOSIZE N



SIZED WITH 2% CONVENTIONAL SIZE

These enlargements show the much greater flexibility of nylon yarn sized with Nopcosize N.

NOPCOSIZE N—

your best defense against:

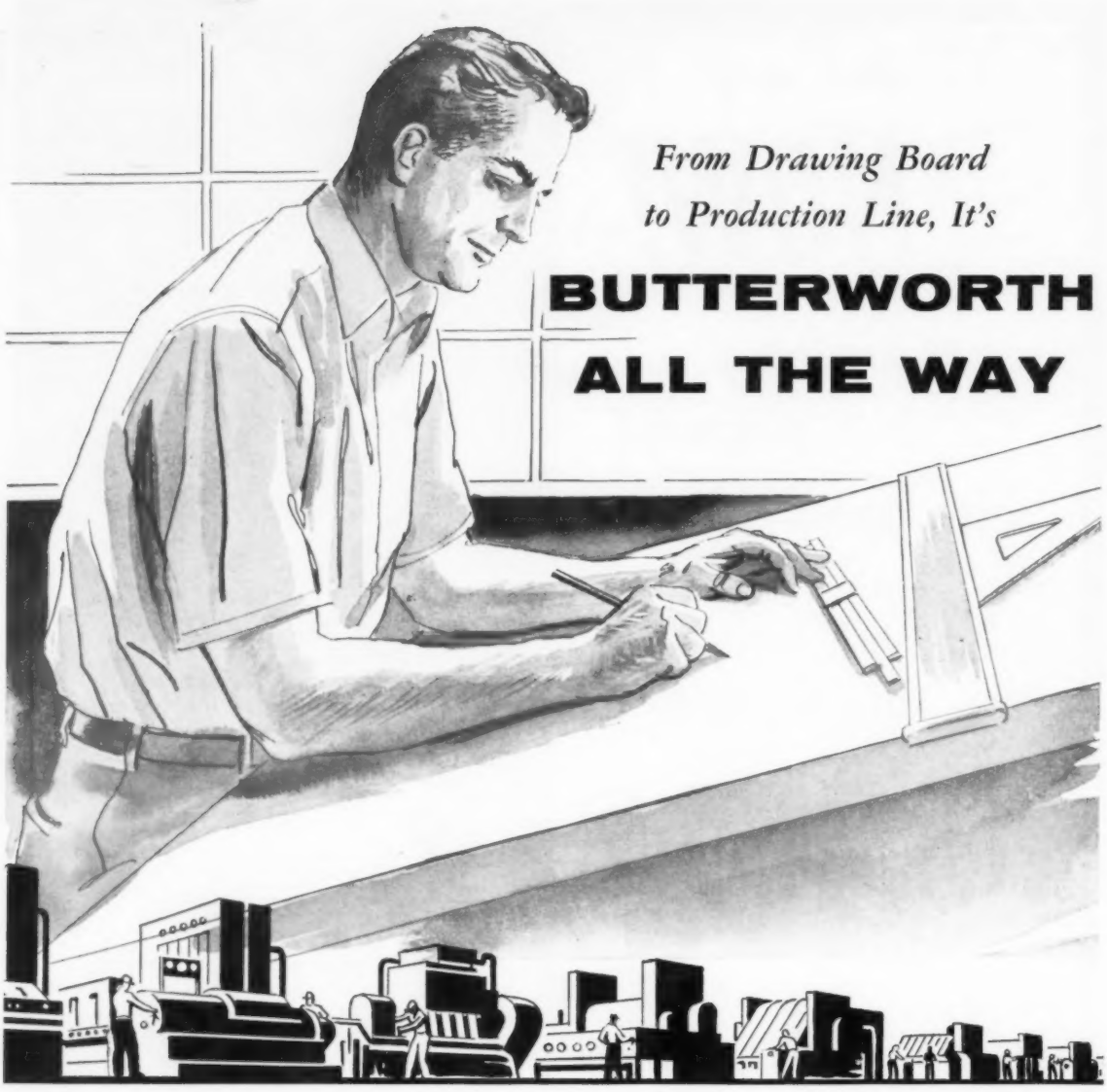
FILAMENT BREAKAGE

TEAR DROPS

ABRASION

NOPCO

PLANTS: Harrison, N. J. • Cedartown, Ga. • Richmond, Calif.
London, Canada



From Drawing Board
to Production Line, It's

BUTTERWORTH
ALL THE WAY

At Butterworth, you get engineering skill *plus* manufacturing facilities — all in one plant, with a single source of responsibility. Butterworth Development Engineering goes to work for you — in our plant with our men and our equipment — to transform your ideas into realities . . . gives you the process, the product or the machine you need — not just the blueprints.

At Butterworth, your idea remains *your* idea, but our engineers become your engineers. Each step in the development of that idea is carefully guarded. And Butterworth men and machines manufacture the finished product to your complete satisfaction.

Got a gap that needs bridging, between an idea and a reality? Then write or call Butterworth today.

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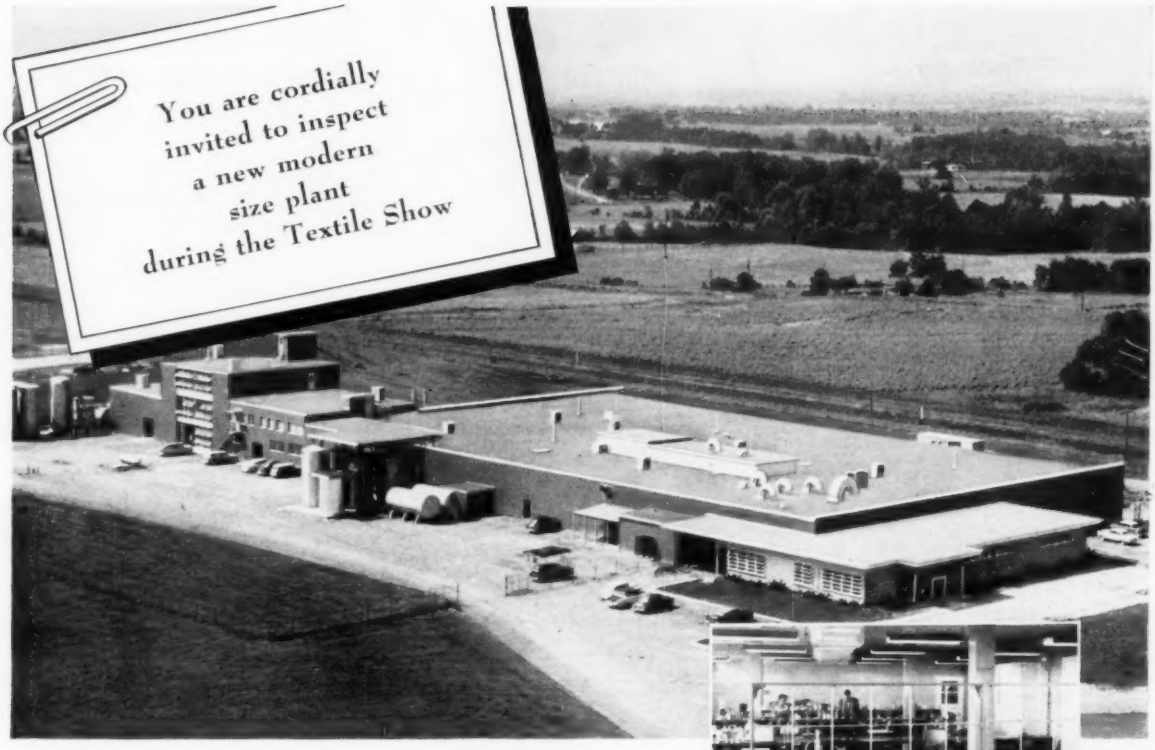
H. W. BUTTERWORTH & SONS CO.
BETHAYRES, PENNSYLVANIA



Texize products and service are now *better than ever...* with this new size plant

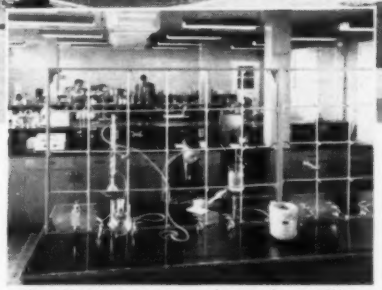
Top production is a more vital factor today than ever before in the long history of textiles. You know why . . . stiffer competition, increased production costs and high quality demands, all put a premium on top production.

Texize accepts this challenge with a new modern plant, designed to produce the finest sizing compounds possible to meet your most exacting slasher requirements.

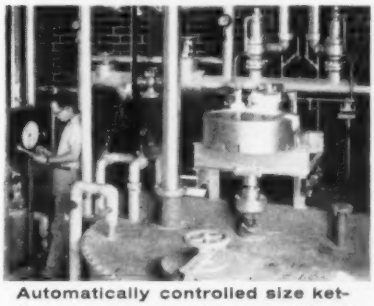
See for yourself, these modern new facilities while you are at the Textile Show. Be our guest on a guided tour of the newest and finest size plant in the world. We will be holding Open House every day during the Show.

See *why* you can always depend upon Texize for superior quality and service for your size needs.

Visit us at the Textile Show, too. Booth No. 411



Continuing research and quality control for sizing is maintained in this modern laboratory.



Automatically controlled size kettles guarantee uniform quality always. Nothing is "left to chance" in this operation.

SIZE WITH TEXIZE

Texize **CHEMICALS, INC.**

GREENVILLE, SOUTH CAROLINA

Manufacturers warp sizings, gums, resins, cleaners, floor dressings

Look

WHAT YOU CAN DO

Now WITH

LIQUID METERS!

1. Improve Quality Control

WITH METER-PRINTED BATCH TICKETS

This Neptune Print-O-Meter automatically stamps a ticket with the number of gallons or pounds of liquid delivered to your batch or process . . . a perfect, fool-proof record for closer control over quality, costs, and inventory. Coupled with Neptune Auto-Stop or Auto-Switch features, it offers you many new time and labor savings. The Print-O-Meter is available with accurate Neptune meters from 1 to 4 in. size, 5 gpm. to 500 gpm.

2. Control Pumps, Valves, etc.

WITH AUTO-SWITCH METERS

An explosion-proof electrical switch on this meter is actuated automatically when the desired quantity of liquid has been delivered. Use it to turn pumps on or off, to actuate solenoid valves, start agitators, or control other cycling operations. Available with or without the mechanically coupled Auto-Stop valve, which also is actuated by the tripping mechanism in the register. Auto-Switch available with Neptune meters from 1 to 4 in. size, 5 gpm. to 500 gpm.

Ask for Helpful Metering Bulletin 567ATI

Lists more than 150 liquids . . . chemicals, syrups, hot and cold water, oils, etc. . . . you can measure faster, more accurately, more automatically with Neptune disc-type liquid meters.

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19 West 50th Street, New York 20, N. Y.

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In Canada: **NEPTUNE METERS LTD., TORONTO 14, ONTARIO**

neptune Liquid METERS

What the TEXTILE MILLS *are doing*

(Continued from page 46)

variety of other novelty yarns are being manufactured and sold natural or dyed. E. Fried, an executive of the parent company, heads the new firm.

Swift Spinning Mills, Inc., Columbus, Ga., is building a two-story addition joining the second and third floors of its present structure. The 53' x 156' unit will add 15,000 sq ft to the carding and spinning rooms at a cost, including machinery, of $600,000. It is anticipated that 40 or 50 additional employees will be required.

The stockholders of **Border City Mfg. Co., Foster Spinning Co.,** and **Sagamore Mfg. Co.,** Fall River, Mass. firms, have voted to consolidate the three firms. According to a statement made by Lawton S. Brayton, treasurer of Sagamore, the consolidation will offer diversified production and a ready-made market for the manufacture of blended fabrics.

Deering, Milliken & Co., Inc., has set up a new organization, **Milliken Yarns, Inc.,** in Greenville, S. C., to buy and sell yarns. It is reported that the new firm will do commission throwing, warping, and slashing; buy carded and combed yarns; sell worsted, spun synthetics, and cotton yarns; and sell Agilon stretch nylons. Officers: Alan B. Sibley, president; Charles A. New, vice-president; and R. L. Collett, secretary-treasurer.

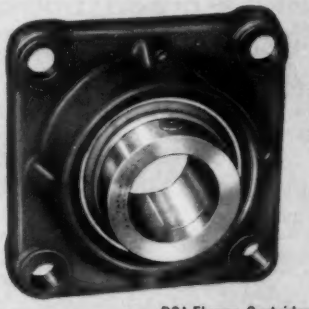
Pacific Mills has leased **Raeford (N.C.) Mill** and **Clarksville (Va.) Finishing Plant** from Textron, Inc., for a period of ten years. Change in the nature of the operation of these two plants is not contemplated.

Pepperell Mfg. Co. offers an abrasion resisting finish with its Constitution vat dyed blue denim at no extra cost. The finish, called "Wear Set," will soon appear on other Pepperell fabrics. The finish also offers weight retention, firmness, and fullness of hand after repeated washings, and improved color retention.

Patchogue-Plymouth Mills Corp., parent organization of **Hazelhurst (Ga.) Mills,** has announced that its name has been changed to **Patchogue-Plymouth Corp.** Its home office has been moved from 295 Fifth Ave., New York, N. Y., to 261 Madison Ave., New York 16, N. Y.

NEW! Fafnir Wide Inner Ring Ball Bearings with PLYA-SEALS . . . *contact type*

A most important feature *. . . on slow-speed applications where service conditions are excessively dirty and moist*



RCJ Flange Cartridges
(Standard Series)

RAK, RAS Pillow Blocks
(Standard Series)

Plya-Seal Construction
— for wide inner ring ball bearings. A synthetic rubber, contact-type seal located between two "dished" steel plates for extra rugged support.

With the addition of this version of PLYA-SEALS to the Fafnir line of wide inner ring ball bearings, you can be more selective in the type of sealed bearing you specify and install. Where service at slow to moderate speeds demands most effective protection against contaminants, especially air-borne dust, dirt and grit, the Plya-Seal type offers the advantages of contact seals, tested and proven by years of service.

Plya-Seal Wide Inner Ring Bearings are optional on the standard series Pillow Blocks and Flange Cartridges. They are dimensionally interchangeable with the Fafnir Mechani-Seal. Flared lip and clearance between inner supporting seal member and inner ring O.D. keeps seal from pushing in. Plya-Seals do not absorb contaminants, thus their surface won't glaze and lose its efficiency. *Fafnir Wide Inner Ring Bearings equipped with Plya-Seals are relubricatable!*

Here's an opportunity to improve operations, reduce servicing, eliminate loss of lubricant, provide the most effective protection from contaminants. For new Bulletin on Plya-Seal Wide Inner Ring Ball Bearings, ask your Authorized Fafnir Distributor or write The Fafnir Bearing Co., New Britain, Conn.

FAFNIR
BALL BEARINGS
MOST COMPLETE LINE IN AMERICA

MICRO precision switches

...THEIR USE IS A PRINCIPLE OF GOOD DESIGN

HONEYWELL

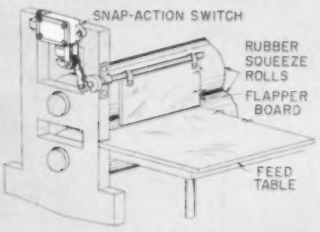
Increase production and provide safety by installing MICRO SWITCH precision switches

• Textile plant operating men have found MICRO SWITCH precision switches, installed at strategic points, give automatic operation and increased production from existing equipment. It is an easy, quick and economical way to boost plant capacity on a modest budget.

These ideas illustrate how MICRO SWITCH products are being used to make equipment operate more efficiently:

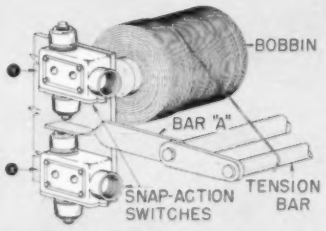
Protects operator's hand in carpet-wringing operation

Roller-arm actuated switch is operated by cam to shut off rolls in case baffleboard is pushed forward. Carpet is positioned in the nip of the rolls by hand but machine will not operate until hands are withdrawn. Roller arm is field adjustable through 360° horizontally and 225° vertically. Elastomer boot protects switching unit against effect of liquids, dust or other foreign substances.



Keeps proper yarn tension for knitting operation

Two enclosed maintained-contact switches are used to prevent breakage of yarn due to either too high or too low tension. In either case, Bar A contacts one switch or the other and shuts off the machine. This switch is designed for applications which require sustained contact after the actuating force has been released. A re-set plunger enables the switch to be re-set for succeeding operations.



For complete information on switches for textile equipment, contact the MICRO SWITCH *distributor nearest you. Field engineering service is also available at* MICRO SWITCH *branch offices. Look under "Switches, Electric" in the Yellow Pages.*

How MICRO Precision Switches are used to increase textile production

as trumpet stops on combing heads
•
as carriage movement controls
•
to prevent needle breakage
•
to stop bobbin winding when bobbin fills
•
to automatically eject unfilled quills
•
to stop motor when gear box is opened
•
to control position of pressure roll on warper
•
to control tension on cloth measuring machine
•
as thread breakage detectors
•
to control cloth position as web unrolls
•
to position clamps on cloth stretching machine
•
as thread run out detector on loom shuttles
•
as selvedge build-up control
•
as fabric thickness detectors
•
and many other textile applications

Send for Catalog 83 "Industrial Enclosed Switches"

MICRO SWITCH

A DIVISION OF MINNEAPOLIS-HONEYWELL REGULATOR COMPANY

In Canada, Leaside, Toronto 17, Ontario • FREEPORT, ILLINOIS

HONEYWELL

A POWERFUL STRIPPING AID

for vat, sulfur, direct and developed colors

PEREGAL ST®

Peregal ST is THE assistant to use for stripping cotton or rayon yarns, piece goods, raw stock and prints.

Peregal ST forms extremely stable cation-anion complexes with dyestuffs containing sulfo or phenolate groups in aqueous solution. The bond of attraction between these dyes and Peregal ST is so strong that the affinity of the dislodged dye in the stripping bath is permanently shifted away from dyestuff-on-cellulose to dyestuff on Peregal.

In general, Peregal ST can be considered a "liquid fiber" for which dyestuffs have even greater affinity than for cotton or rayon.

Write today for complete technical data on this highly effective and economical stripping aid.

From Research to Reality

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A SALES DIVISION OF GENERAL ANILINE & FILM CORPORATION

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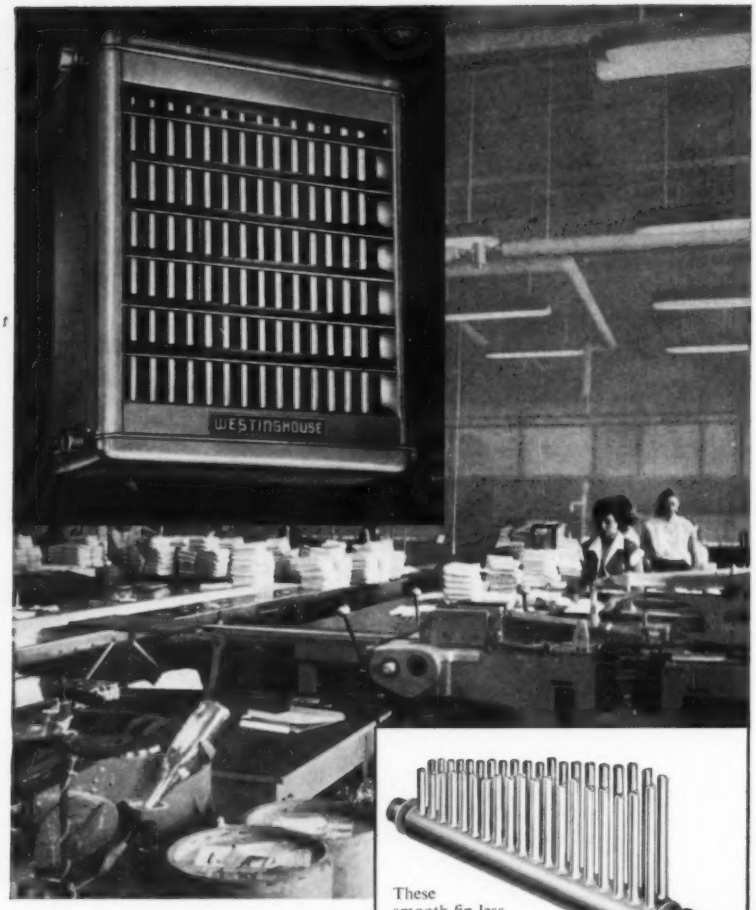
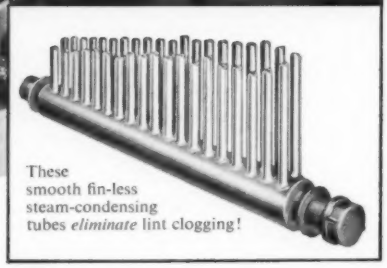
Portland, Ore. • San Francisco • Los Angeles • IN CANADA: Chemical Developments of Canada, Ltd., Montreal

ANTARA gaf

CLOG-FREE Speedheaters
end lint problem in textile mills!





These smooth fin-less steam-condensing tubes *eliminate* lint clogging!

Quiet, efficient Westinghouse Textile Speedheaters assure you dollars and cents savings by:

- Eliminating lint and dust build up—with nonclogging heating element.
- Forcing heat when and where it is needed into working areas—no wasted BTU's.
- Saving fuel—because all the heat is directed where you want it.

For complete application service, call your Westinghouse Distributor or your nearest Sturtevant Division Sales Engineer . . . or write Westinghouse Electric Corporation, Department 7K, Hyde Park, Boston 36, Massachusetts.

WATCH WESTINGHOUSE!

COVER PRESIDENTIAL CAMPAIGNS ON CBS TELEVISION AND RADIO

J-80585A

SUPPLIERS News
WHAT THEY ARE DOING

Morris G. Munson has been appointed southern regional manager for **American Air Filter Co.,** covering Fla., Ga., Ala., Miss., La., Texas, Ark., and Okla. He will continue to be located at 11730 Gulf Blvd., St. Petersburg, Fla. * * * J. M. Osborne has been named southern regional supervisor of unit ventilator and heating and ventilating products, under Mr. Munson's supervision.

The **American MonoRail Co.** has moved its offices and warehouse in Charlotte, N. C., to 3121 Monroe Road. The new phone number is Edison 4-3088.

Appointment of John A. Harley as New England representative has been announced by **Alliance Chemical**

Mr. Harley

Corp., a division of The Andover Co. He formerly represented Ciba Co., Inc., in the same territory.

Robert L. Duckett, former associate of Pacolet Manufacturing Co., has joined the **Uster Corp.** testing equipment department as service engineer for Ga., Ala., Miss., and western Tenn., with headquarters in Atlanta, Ga.

Newly appointed sales manager of the Wheelco instruments division of **Barber-Colman Co.** is H. H. Kieckhefer, formerly assistant sales manager.

J. Raymond Murphy, Jr., formerly salesman with the Philadelphia district office of **American Viscose Corp.,** has been transferred to the fiber sales department in New York. * * * Rene Bouvet, head of the textile development division of the textile research department, has been named an assistant director of the department, succeeding Harrison D. House,

(Continued on page 58)

SHELL
VEXILLA OIL 117

. . . THE TOTALLY NEW NEEDLE LUBRICANT
for fine-gauge full-fashioned and seamless knitting machines

1. ***12 TIMES GREATER RUST PROTECTION*** than the best current oils . . . during both operating and shutdown periods.

2. **Eliminates green soap formation,** and minimizes machine oxidation.

3. **Controls nylon size deposits,** and permits easy cleaning during shutdown periods.

4. **Very low surface tension,** resulting in increased wetting and lubrication.

5. **No gummy deposits . . .** contains no fatty acids.

Shell VEXILLA OIL 117 establishes a new set of standards in knitting machine lubrication. Test it in comparison with the oil you are using. Write for further information.

SHELL OIL COMPANY
50 West 50th Street • New York 20, New York

SHELL

your Two best sources for UREA

Allied

...and

Allied

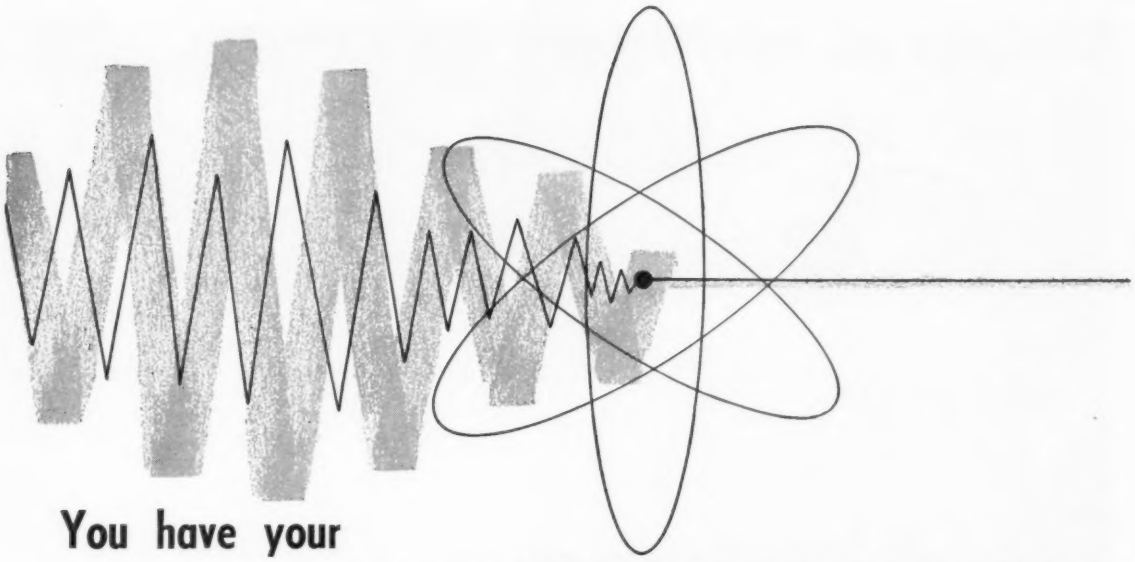
Allied's Nitrogen Division has 2 urea plants – one at South Point, Ohio and one at Omaha, Nebraska. When considering your source of UREA supply, Allied tops the list with its multi-plant production. Quality? Very high. Delivery? Fast – no matter where you are, thanks to widely separated producing locations. Carlots and trucklots from the plants. LCL from warehouse stocks in Passaic, N. J.; Chicago, Ill.; Providence, R. I.; East St. Louis, Ill.; and Charlotte, N. C. All shipments in easy-to-use, 100 lb. moistureproof multiwall paper bags.

U 1-18-2

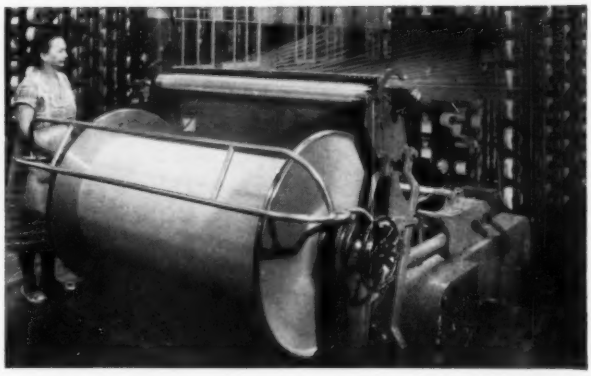
Allied Chemical — NITROGEN DIVISION

40 Rector Street, New York 6, N. Y.

Ethanolamines • Ethylene Oxide • Ethylene Glycols • Urea • Formaldehyde • U. F. Concentrate—85 • Anhydrous Ammonia • Ammonia Liquor • Ammonium Sulfate • Sodium Nitrate • Methanol • Nitrogen Tetroxide • Nitrogen Solutions • Fertilizers & Feed Supplements



You have your automobile wheels DYNAMICALLY BALANCED. WHY?



For the same reason, *textile beams which run at high speed should be dynamically balanced.* Check the benefits shown below.**

BENEFITS FOR YOU

Reduction of vibration and noise at warper.
Better uniformity of balance on slasher creel.
Reduction of machine maintenance costs.
Higher speeds for greater efficiency and production.
Better quality warps.
Instant proof of beams being in balance.

AGAIN HAYES PIONEERS

Pioneers in the use of electronic strain gauges to maintain strength and reduce weight . . . in aluminum loom beams . . . in nylon section beams . . . in giant size cotton beams . . . in mass production that brought Hayes Beams within reach of all textile mills . . . with resultant annual sales of thousands of Hayes Beams, proving Hayes pioneering in the right direction to meet the growing needs of the textile industry . . . **and now, Hayes pioneers in ELECTRONIC DYNAMIC BALANCING!**

* *Dynamically balanced at slight additional cost.*

Our skilled engineering staff is available to assist you with your problems.

HAYES INDUSTRIES, INC.
JACKSON, MICHIGAN

THE WORLD'S LARGEST PRODUCER OF LIGHT METAL BEAMS

Southern Representative: R. E. L. Holt, Jr. & Assoc. Greensboro, N. C.
New England Representative: J. S. Fallow & Co. New Bedford, Mass.
Eastern Representative: J. Paul Laird Philadelphia, Pa.
Canadian Representative: J. S. Fallow & Co. Montreal, Canada

You are invited to visit the HAYES EXHIBIT. Annex 6, Southern Textile Exposition.

Why you get more service from V-Belts with CONCAVE SIDES

Fig. 1

Fig. 1-A

Each sidewall of a Gates V-belt is concave (Fig. 1)—a precisely engineered curve that makes V-belts last far longer.

HERE'S WHY: on the bend around the sheave, the concave sides of a Gates V-belt fill out and become straight (Fig. 1-A). Thus the belt makes full contact with the sides of the sheave, grips the sheave *evenly*. This even contact distributes wear uniformly across the sides of the belt.

Uniform wear lengthens belt life; keeps costs down.

MAKE THIS SIMPLE TEST

Fig. 2

Fig. 2-A

Bend a straight-sided belt (Fig. 2). The sides bulge at the bend causing uneven contact in the pulley groove (Fig. 2-A). Naturally, wear is greater at points indicated by arrows. Result: shorter belt life, increased belt costs.

To cut down-time and V-belt replacement costs, specify belts that grip evenly and wear longer. Specify Gates Vulco Rope—the V-belt with concave sides. There is a Gates distributor nearby who will quickly supply the belts you need. The Gates Rubber Co., Denver, Colorado—*World's Largest Maker of V-Belts.*

There are Gates Engineering Offices and Distributor Stocks in all industrial centers of the United States and Canada, and in 70 other countries throughout the world.

TPA 109

Gates

Gates VULCO ROPE Drives

SUPPLIERS News — WHAT THEY ARE DOING

(Continued from page 54)

retired. George G. Wells, Jr., sales development representative at the Roanoke, Va., rayon plant, has been transferred to department headquarters at Marcus Hook. Replacing him at Roanoke is George A. Glarner from the textile research weaving division.

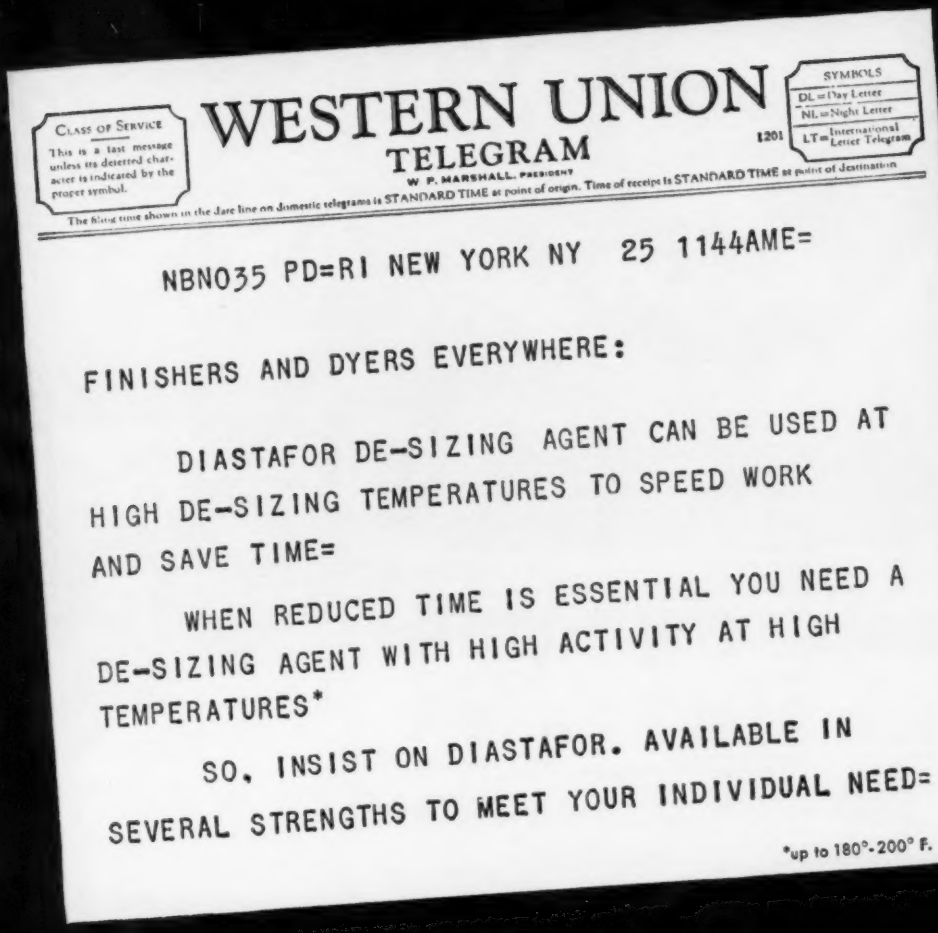
American Aniline Products, Inc., wholly-owned subsidiary of Koppers Co., Inc., has announced plans to build a new metropolitan sales office laboratory and warehouse at Paterson, N. J. Approximately 6,000 of the 50,000 sq ft of floor space will be devoted to laboratory facilities for the testing of dyes and other chemicals used by the dyeing industry. When in full operation the new facilities will employ about 50 persons. Completion and occupation are expected in the spring of 1957.

Berkshire Color Co., Inc., the former Berkshire Color & Chemical Co., is in full-scale production following the completion of a modernization program. The firm had acquired the former Bick Chemical Corp. plant in Reading, Pa., and plans are being drawn up for further expansion of the Reading plant, with construction to begin next spring. The Delawanna plant will continue to house the general sales offices. In addition it will house a greatly expanded research and development department and laboratories with a view toward Berkshire's entry into the pigments and special products fields, as well as dyestuffs and intermediate research.

Fred E. Schroder, textile engineer, is now representing the **Logan Co.** in the Piedmont section of the two Carolinas; he also represents the **Arguto Oilless Bearing Co.** and the **Holyoke Leather Belting Co.**

The Chemstrand Corp. has appointed as sales agents for Acrilan acrylic fiber in Canada, Fawcett & Co., 34 High Park Blvd., Toronto 3. • • • Charles W. Carvin, Jr., has been named assistant nylon sales manager with headquarters in the New York office. • • • John P. Dougherty has joined the company as a senior sales specialist, and has been assigned to the Acrilan sales group headed by R. E. Smith in the N. Y. district sales office. Mr. Dougherty previously served as military and civilian chief of the general testing laboratories, U.

When time means cost, reduce it safely with thermostable Diastafor



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TELEGRAM
W. P. MARSHALL, PRESIDENT

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1201

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WHEN REDUCED TIME IS ESSENTIAL YOU NEED A DE-SIZING AGENT WITH HIGH ACTIVITY AT HIGH TEMPERATURES*

SO, INSIST ON DIASTAFOR. AVAILABLE IN SEVERAL STRENGTHS TO MEET YOUR INDIVIDUAL NEED=

*up to 180°-200° F.

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Diastafor Department
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SUPPLIERS News — WHAT THEY ARE DOING

S. Army Quartermaster Corps in Philadelphia. * * * Recently appointed manager of the New England district sales office is R. Houston Hale. * * * Mitchell F. Simmons has been transferred to the nylon sales division at the New York office. As sales specialist, he will specialize in the applications of Chemstrand nylon yarn in the knitting industry. * * * William P. Tukey has also joined the nylon sales division New York office, and his duties as sales specialist will be concerned with the military and industrial applications of Chemstrand nylon yarn.

Newly named field representatives to handle industrial financing operations in Alabama, Georgia, and South Carolina, respectively, for the **C. I. T. Corp.** are: John F. Kane, of Birmingham, Ala.; Jim L. Gisi of Atlanta, Ga.; and Harry L. Gay of Columbia, S. C.

Cutler-Hammer, Inc. announces the appointment of B. R. Stratton as

Mr. Stratton

manager of the Atlanta, Ga., district sales office.

The Dallas, Tex., office of **C. R. Daniels, Inc.** at 2109 East Commerce St. has been moved to 9200 Chancellor Row, Brook Hollow, Ind. Dist. Telephone: Dixon 9010. The new and larger office and manufacturing space were needed to facilitate the heavy demand for canvas items as well as coated nylon fabrics.

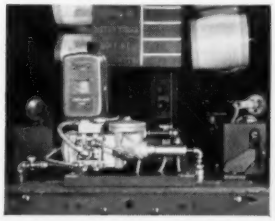
The Diehl Manufacturing Co. has opened a new southern district office and warehouse in the recently completed Singer Building, 4951 Peachtree Industrial Boulevard, Chamblee, Ga., under the management of Edwin F. Graham. Extensive facilities in the new building will permit the maintenance of increased, well balanced stocks and

OWENS CORNING FIBERGLAS YARN PLANT

Keeps yarn clean... Keeps costs down!

WITH TIME-CLOCK-CONTROLLED *Lincoln* CENTRALIZED LUBRICATION

Without stopping production for a second, these automatic twister rings at Owens Corning's Ashton, Rhode Island plant are lubricated automatically. A pre-set electric time clock cycles the air pump, forcing refinery pure lubricant into the bearings.



Of course, this eliminates the costs of man-power and machine down-time for hand oiling. Equally important, it eliminates the hidden costs of hand oiling...yarn spoilage caused by oil dripping from over-lubricated bearings... and excessive wear resulting from inadequate lubrication.

***LINCOLN** Centralized Lubrication slashes costs in all operating categories... puts the right lubricant in the right place at the right time... automatically!*

Write For Complete Details... your free copies of catalogs 80-1 and 806 are ready and waiting!

Lincoln

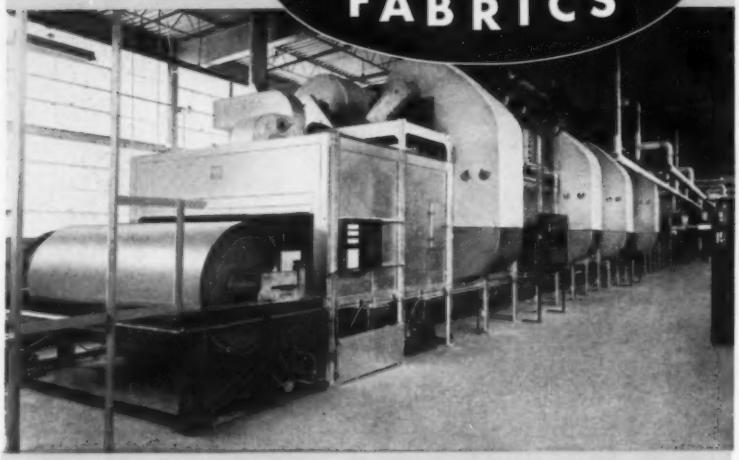
LINCOLN ENGINEERING COMPANY

5702-15 Natural Bridge Avenue • St. Louis 20, Missouri

...THE MOST TRUSTWORTHY NAME IN LUBRICATING EQUIPMENT

The Industry's Answer For Needed
DIVERSIFICATION and AUTOMATION

NON-WOVEN
FABRICS



Utilizing ROSS DRYING AND CURING EQUIPMENT

SINGLE-PASS AND MULTI-PASS CONVEYOR OVENS
ROLL CURING OVENS

to dry and cure non-woven fabrics used in

Coated Fabrics
Padding and Packing
Towels, Table Cloths, etc.
Draperies
Sanitary Products
Interlinings
Outerwear
Industrial Wipes
High Pressure Laminates
Filters

ROSS offers the most complete line of drying and curing equipment for this new field. Contact our nearest office for full information.

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CORPORATION

ATLANTA, GA.—3120 Maple Drive, N.E.
CHICAGO, ILL.—201 North Wells Street
BOSTON, MASS.—79 Milk Street
NEW YORK, N. Y.—444 Madison Avenue
Detroit Los Angeles Seattle

SUPPLIERS News
WHAT THEY ARE DOING

will enable the firm to give prompt and efficient service to customers.

Charles W. Cairns and H. Winston Haskell have been appointed assistants to the manager of coatings sales for **The Dow Chemical Company.** Formerly coatings salesmen with Dow's Detroit, Mich., and Camden (N. J.) offices, respectively, Messrs. Cairns and Haskell are serving on the staff of M. H. P. Morand, manager. Martin A. Craig replaces Mr. Cairns in Detroit, and Robert C. Witt and Robert H. Moberg have been assigned to the Chicago, Ill., and Buffalo, N. Y., offices, respectively.

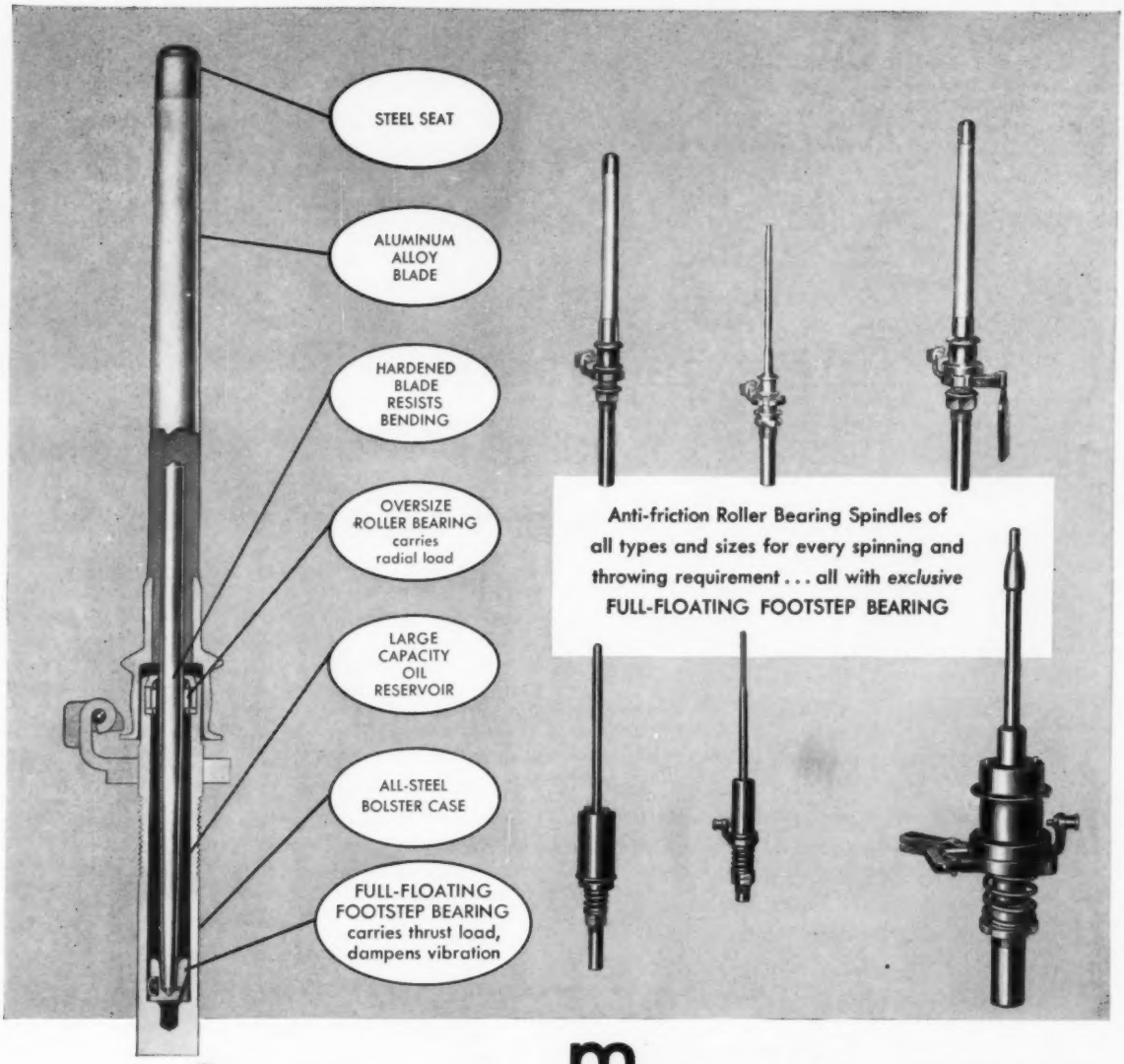
Dravo Corp. has appointed Edgar M. Pierce to supervise the design engineering and installation of Dravo incinerators for municipal and industrial garbage, refuse and sewage sludge disposal. He was formerly engaged in various branches of engineering, construction and administration of power plants, pumping stations, textile mills, paper and board mills, chemical plants, tanneries, and incinerators.

Construction of additional manufacturing facilities to provide increased staple spinning capacity at the Dacron polyester fiber plant of **E. I. du Pont de Nemours and Co., Inc.,** in Kinston, N. C., has been announced. When completed, the project now underway is expected to increase the production of Dacron in the form of staple and tow by approximately 25 per cent.

Amos Griffin, formerly vice-president of Amerotron Corp. in charge of the industrial fabric sales division, has been named director of merchandising, textile division, of **Eastman Chemical Products, Inc.,** at the firm's New York offices.

Fischer & Porter Co. has changed the name of its chlorination division to the water and waste division to describe more accurately the firm's activities in water and sewage treatment and industrial waste fields through the sale of engineering services, chlorination and other chemical feed equipment and instrumentation. Two promotions within the division have been announced. James F. Haskett has been named assistant gener-

(Continued on page 70)


STEEL SEAT
ALUMINUM ALLOY BLADE
HARDENED BLADE RESISTS BENDING
OVERSIZE ROLLER BEARING carries radial load
LARGE CAPACITY OIL RESERVOIR
ALL-STEEL BOLSTER CASE
FULL-FLOATING FOOTSTEP BEARING carries thrust load, dampens vibration
Anti-friction Roller Bearing Spindles of all types and sizes for every spinning and throwing requirement . . . all with exclusive FULL-FLOATING FOOTSTEP BEARING

American-made Marquette SPINDLES produce more yarn at lower cost

The above cross-section view of a typical Marquette Spindle explains why millions are in use today . . . producing *more yarn* at *lower cost.* Every part of every spindle is made in America and is scientifically engineered for superior performance and long life.

No other spindle can offer you all three of these important advantages:

Efficient operation at high speeds

Extremely low maintenance cost

Minimum vibration, due to Marquette's exclusive full-floating footstep bearing

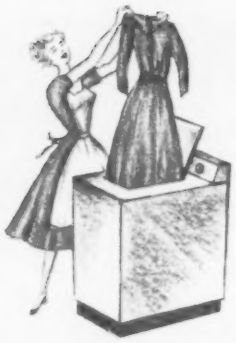
Write for Data Sheets on Marquette Anti-friction Bearing Spindles. Or ask for a test installation *in your mill.*

Representatives: WILLIAM P. RUSSELL, BOX 778, ATLANTA, GA.
C. H. WHITE, MOUNT HOLLY RD., ROUTE 6, CHARLOTTE, N. C.
R. MICHAEL TURNER, 100 CHESTNUT STREET, CLINTON, S. C.

MARQUETTE METAL PRODUCTS DIVISION
CURTISS-WRIGHT
CORPORATION • CLEVELAND 10, OHIO

Other Marquette Products: SPRING CLUTCHES
HYDRAULIC GOVERNORS • AIRCRAFT WINDSHIELD WIPERS
ROTARY OIL PUMPS • PRECISION PARTS AND ASSEMBLIES

these finishes achieve the finest in wash and wear fabrics



RESIPON® N C

— a modified urea-formaldehyde resin produces a soft, resilient hand on cotton and rayon fabrics, while adding these important "wash and wear" characteristics:

1 — exceptional crease and wrinkle resistance

2 — positive shrinkage control (at lower concentrations than conventional urea-formaldehyde resins)

3 — minimum amount of ironing required

4 — desirable hand for dress fabrics

HYDRO-PRUF®

— when used in conjunction with Resipon N C, the combination of silicone and resin brings wash and wear fabrics to new heights of quality and efficiency. Addition of Hydro-Pruf further improves your fabrics in these ways:

— by enriching the "hand" still further

— by speeding up the drying process (less water absorption)

— by increasing resistance to soil (fabric stays fresher longer)

— by improving tear strength

Finishers find that the compatibility of Hydro-Pruf and Resipon N C simplifies the production of the finest in "wash and wear", resembling the hand and appearance of combed cotton fabrics.

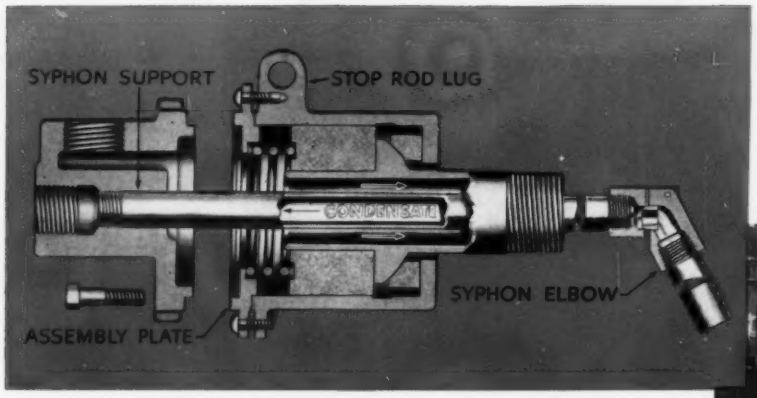
Ask your Arkansas representative for full details, or write for Technical Service Bulletin.

AC INC.®

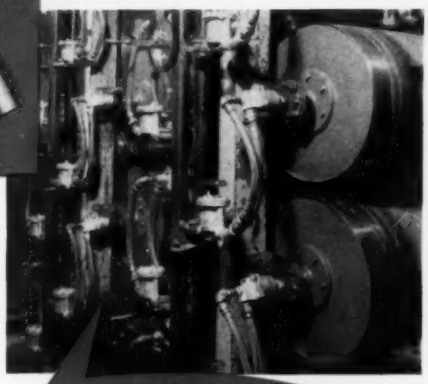
ARKANSAS CO., INC.

Serving the Textile Industry for over 50 Years

NEWARK, NEW JERSEY



TYPE S-B2P Johnson Joint with Syphon Elbow. This is a completely self-supporting unit, and like all Johnson Joints has no packing, needs no lubrication. Installation picture shows Type S-B2P Joints on dry cans in southern mill.



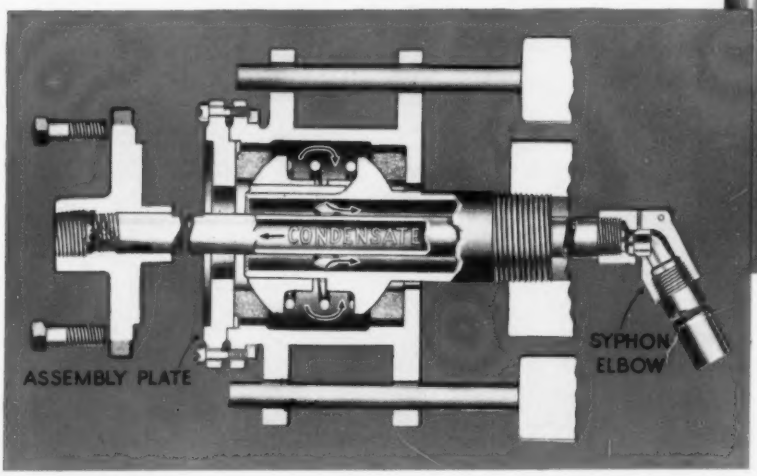
Best thing that's happened in a long time ...for Dry Cans, Slashers and Print Cans

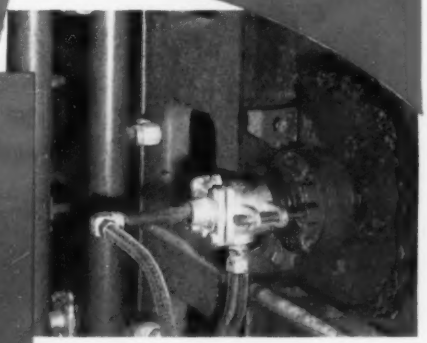
What's happened is this. To match the efficiency of the Johnson Joint for getting steam into cans and rolls, Johnson has developed a mechanical syphon elbow for the job of getting condensate out again. It permits the use of two straight pipes for the syphon pipe . . . is hinged to pass right through the joint . . . seats of its own weight when in position. A special assembly plate is provided on the joint to permit removing the head, and syphon pipe, without disassembling the joint.

Try it yourself—Thousands of installations have proved the two combinations shown are particularly suited for the textile industry. Whatever your needs, we will gladly furnish a pair of units for 90-day trial in your own mill, without cost or obligation.

Write for full information

JOHNSON *Rotary Pressure* JOINTS with JOHNSON SYPHON ELBOWS





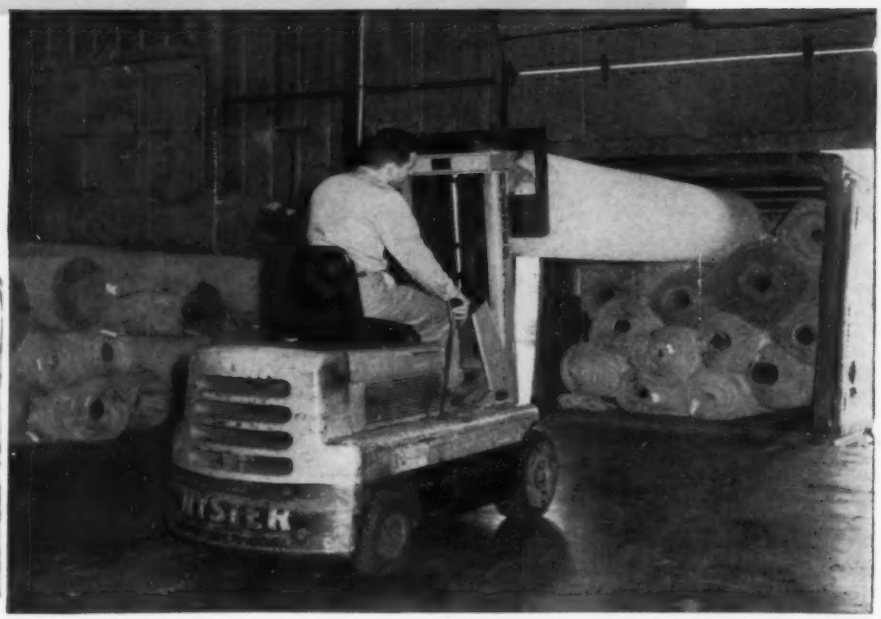
TYPE LJ Johnson Joint with Syphon Elbow. Has lugs on body for support rods, which carry all weight of body and connections, permit rotating assembly to "float" freely inside. Steam inlet is in side of body, as shown in installation view.

THE JOHNSON CORPORATION

815 Wood Street, Three Rivers, Michigan

Rotary Pressure Joints • Direct Operated Solenoid Valves

HYSTER INDUSTRIAL TRUCKS ARE *BUILT* TO DO THE HEAVY WORK



Rug pole equipped Spacesaver 40 loading out carpets. This unit will handle the heaviest rolls now being processed at this finishing mill.

Pictured above is one of many typical examples of how Hyster® Industrial Trucks are helping to effect tremendous savings in the cost of handling materials in the Textile Industry.

Even if you are now using lift trucks or have never used industrial trucks of any kind, your Hyster dealer can show you how you can quickly realize more profit from your operation with these multi-purpose utility tools. Your Hyster dealer knows materials handling . . . he is an expert on the problems and their solution. He can help you with special techniques and cost reducing methods. Call him today...why not take advantage of his materials handling know-how? He is listed under "Trucks-Industrial" in your telephone directory.

Materials Handling Trucks from 1,000 to 30,000 pound capacities

HYSTER DEALERS GIVE YOU ALL 3!

1. **PLANNING**—your Hyster Dealer will plan your materials handling operation from scratch, or will analyze your present system to see if it can be improved.
2. **THE RIGHT TRUCK**—for your job from Hyster's complete line of industrial trucks (1,000-30,000 lbs.) and over 100 job-attachments for economical load handling.
3. **THE RIGHT SERVICE**—ample spare parts stock, shop facilities, factory-trained mechanics and an efficient field service that keep your Hyster lift trucks going on your job, wherever your job might be located. Hyster trucks are noted the world over for their low downtime.

See HYSTER Products on display
in Booth 825
19th Southern Textile Exposition
Greenville, South Carolina - Oct. 1-5, 1956

2902-57 N. E. CLACKAMAS, PORTLAND 8, OREGON
1010-57 MYERS STREET.....DANVILLE, ILLINOIS
HYSTER N.V. .....NIJMEGEN, THE NETHERLANDS
FOUR FACTORIES: Portland, Oregon; Danville, Illinois; Peoria, Illinois; Nijmegen, The Netherlands.

HYSTER COMPANY

man-made rainbow... for rainwear

New rainwear fashions typify the universal trend to combine beauty and practicality.

In textiles this trend has resulted in a multiplicity of fibers, finishes and blends that makes the dyer's art increasingly complex.

Happily, we are now better-than-ever situated to help you resolve those complexities. Our facilities for technical service are expanding, color ranges are growing and ample stocks of the right dyestuffs are maintained near all major textile centers.

So for help with new problems as well as your day-to-day dyestuff needs, remember it always pays to rely on National Aniline.

NATIONAL ANILINE DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 RECTOR STREET, NEW YORK 6, N. Y.

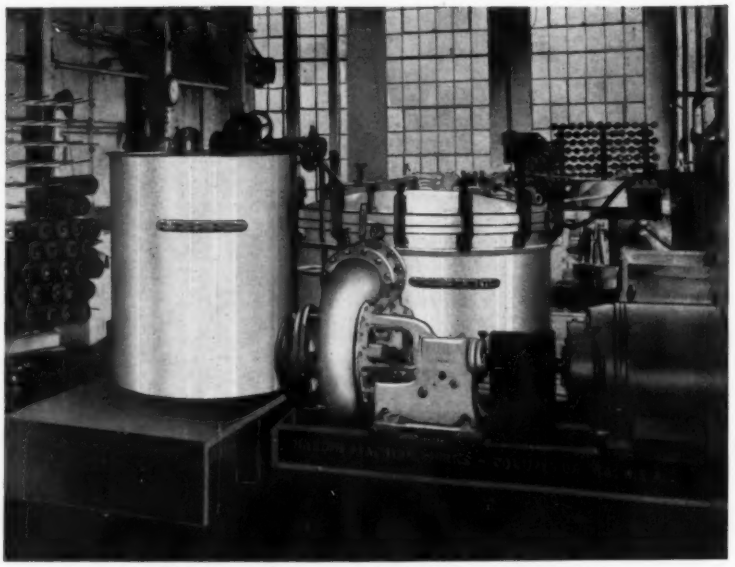
Boston Providence Charlotte Chicago San Francisco Atlanta Portland, Ore. Greensboro Philadelphia Richmond Cleveland Los Angeles Columbus, Ga. New Orleans Chattanooga Toronto

Raincoat by Claire McCardell

MORTON SYSTEM

RAW STOCK AND PACKAGE DYEING MACHINE . . .

This is a jumbo package dyeing machine, with modifications for dyeing raw stock and tops. Excellent for large lots and multiple uses.



Combination Stock, Tops and Package Dyeing Machine

BIG MACHINES FOR BIG PRODUCTION 5000 POUND LOTS

Jumbo Packages . . . or Tops

SYNTHETICS AND NATURAL FIBERS AND YARNS.

NO BASEMENT REQUIRED.

LARGE FLOW OF LIQUOR.

HEAVY DUTY ENGINEERED.

BUILT TO FIT YOUR PRODUCTION.

— ANY SIZE LOTS —

Manufactured by:

MORTON MACHINE WORKS, Inc.

COLUMBUS, GEORGIA, U. S. A.

Manufacturers of the MORTON SYSTEM Machinery for Dyeing and Bleaching of:

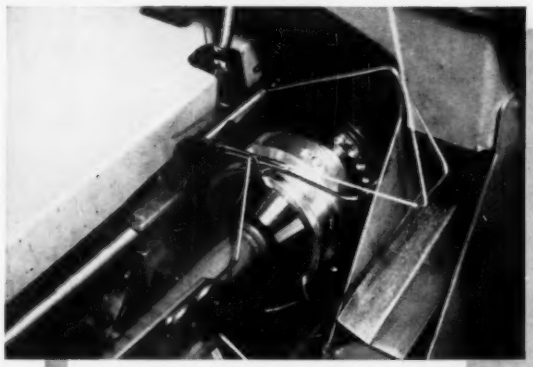
BEAMS -:- PACKAGES -:- STOCK -:- PIECE -:- TOPS

VALVES — PUMPS — BEAM AND PACKAGE EXTRACTORS AND DRYERS — DYE BEAMS, ALL MAKES AND DESIGNS — DYE TUBES — DYE SPINDLES — TUBE SPACERS — CUSTOM BUILT TANKS TO CUSTOMER'S SPECIFICATIONS.

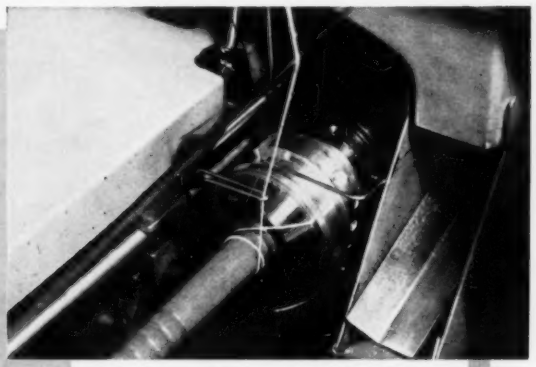
FOSTER-MUSCHAMP MODEL 66* AUTOMATIC FILLING WINDER

A New High in Winding Quality • A New Low in Winding Costs

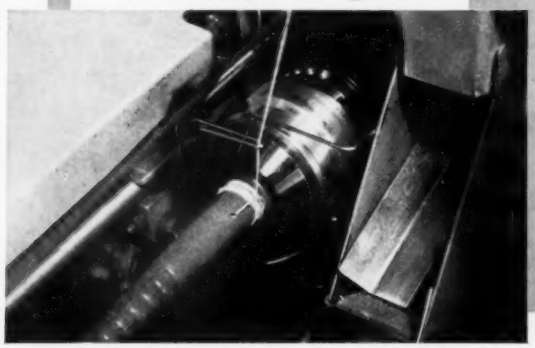
*Manufactured in Westfield, Mass.



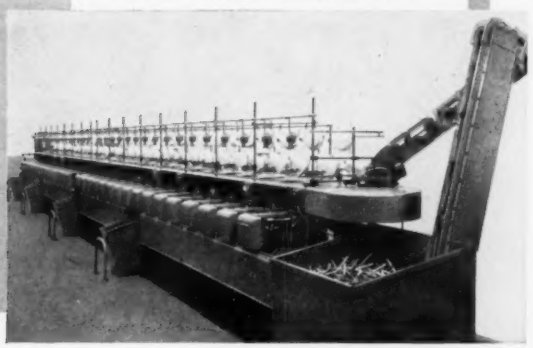
No. 1 — Bobbin entering drive



No. 2 — Commencing the wind



No. 3 — Tail released and secured under first wraps of bunch



No. 4 — Typical installation

NO STARTING TAIL — *A New Feature*

The Foster-Muschamp Model 66 completely eliminates the starting tail on bobbins (see illustrations). Therefore it eliminates the weaving troubles which are caused by starting tails.

This is only one of many features which have enabled the Model 66 not only to set a new high in winding quality, but also a new low in winding costs (as low as ¼¢ per lb. in some cases). Some of the other features are as follows:

- Uniformly perfect bobbins as to wind and density.
- A spindle speed of 15,000 r.p.m.
- Everything is automatic (including pinboarding or stacking of filling boxes and lint cleaning), except piecing up of broken ends and donning and doffing magazine cone creel.

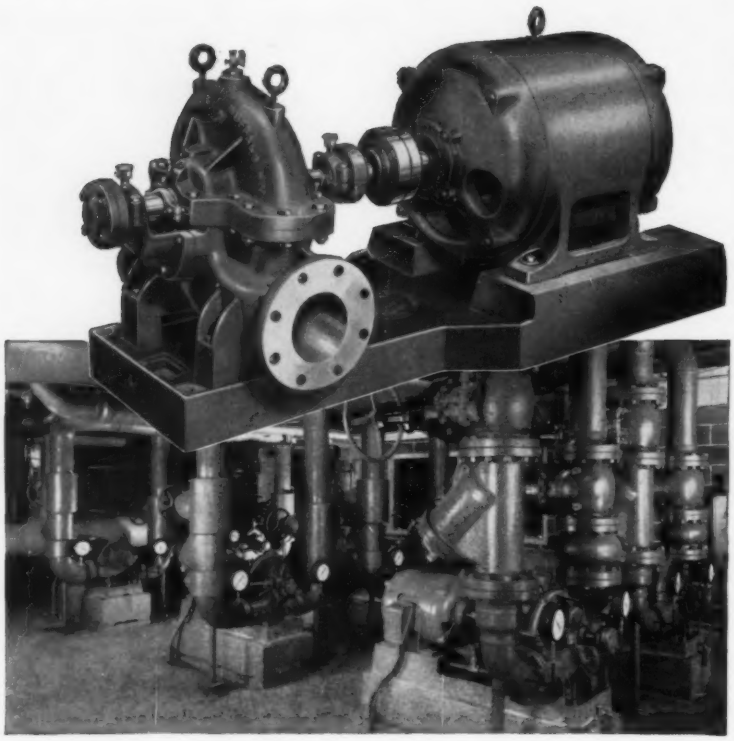
Find out how the Model 66 can increase your quality and lower your costs. Send for our new Bulletin M-4A. No obligations.

FOSTER MACHINE COMPANY

Westfield, Mass., U.S.A. • *Southern Office* — Johnston Bldg., Charlotte, N. C.

Canadian Representative — Ross Whitehead & Co., Ltd., 1475 Mountain St., Montreal, Que. and 100 Dixie Plaza, Port Credit, Ontario

HOW "BUFFALO" PUMPS AID TEXTILE QUALITY CONTROL



Air washing, humidification and cooling are recognized by textile firms as "musts" in maintaining quality of carding, spinning and knitting. And since air conditioning units can be no more dependable than the pumps that supply their water, the choice of pumps is frequently "Buffalo". This choice is based on reliable performance and user satisfaction going back 79 years. Ask the engineer or the maintenance man who knows pumps — he'll tell you "Buffalo" is the *safe* buy to insure best long-term operation of your installation. Write for Bulletin 955 and check the "Q" Factor* construction details that mean efficiency — strength — freedom from troubles.

**The "Q" Factor—the built-in Quality which provides trouble-free satisfaction and long life.*

"Buffalo" PUMPS

BUFFALO PUMPS

DIVISION OF BUFFALO FORGE COMPANY

175 MORTIMER ST. • BUFFALO, N. Y.

Canada Pumps, Ltd., Kitchener, Ont.

Sales Representatives in all Principal Cities

A BETTER CENTRIFUGAL PUMP FOR EVERY LIQUID

SUPPLIERS News — WHAT THEY ARE DOING

(Continued from page 62)

al manager, and John J. Fetch has been named production manager.

Geigy Chemical Corp. has announced a change in location from New York City to Saw Mill River Road, Ardsley, N. Y. The new headquarters include air-conditioned administration and cafeteria buildings, as well as a laboratory and service building.

Arthur P. Boller has been appointed executive secretary and treasurer of the **Floor & Vacuum Machinery Manufacturers Association,** to fill the vacancy left by the resignation of Lyle Jones. Mr. Boller's headquarters will be in Chicago. During the summer he conducted association affairs from his summer home in Twin Lakes, Wis.

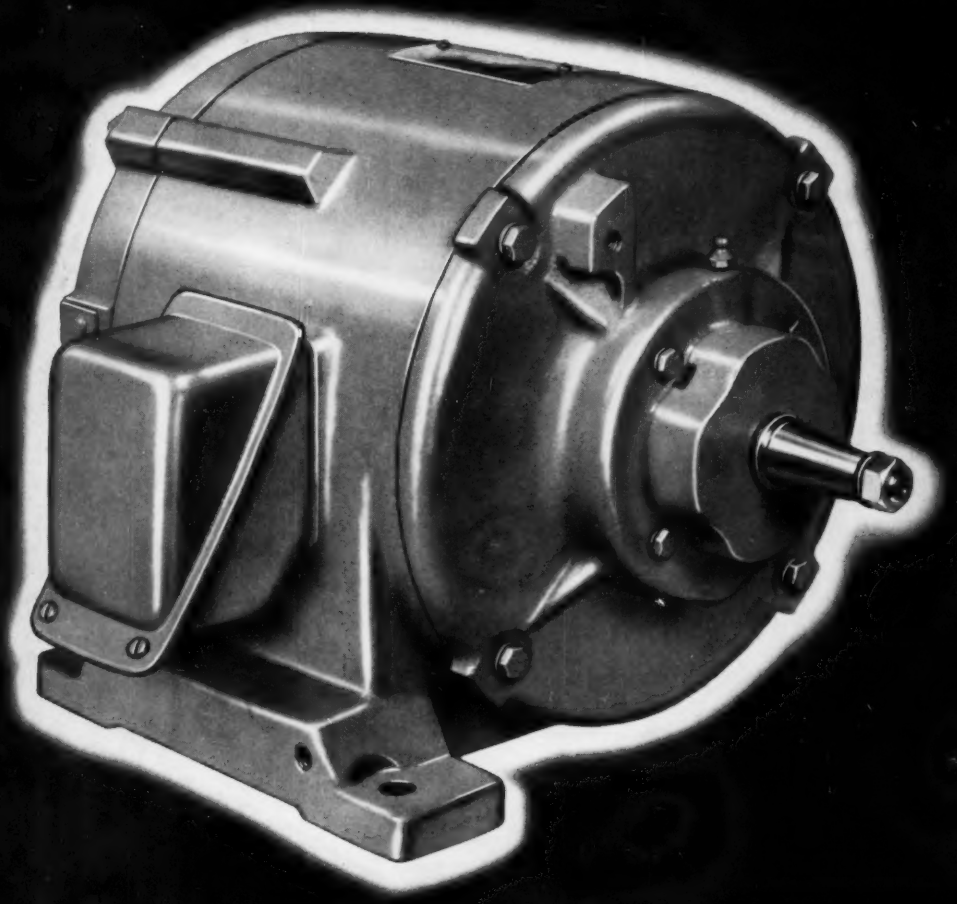
Jack Harrison has been promoted from a member of the sales engineering department of **The Fletcher Works** to sales director for the state of Pennsylvania and the South.

Mr. Harrison

The B. F. Goodrich Co. has recently issued an attractively illustrated 16-page booklet, printed in two colors, which outlines the company's newly established aid-to-higher education program, explains the aims, and describes how the plan will provide financial assistance in the form of student scholarships, cost-of-education grants, and contributions in other educational areas.

National Aniline Division, Allied Chemical & Dye Corp. has named William H. Poisson technical sales representative for Caprolan deep-dye nylon and Caprolan tensile-tough nylon. Formerly the New England representative for Caprolan, Mr. Poisson's headquarters are now in

LOOK FOR THE GENERAL ELECTRIC CLUTCH-BRAKE MOTOR AT THE SOUTHERN TEXTILE EXPOSITION OCTOBER 1 THROUGH OCTOBER 5 AT BOOTH NUMBER 119!



The General Electric Clutch-brake Motor Features Long Life Bearing System, More Constant Picking Speed, High Efficiency

Other outstanding features include:

- Faster, more accurate braking
- Reduced power requirements
- Easy disassembly while in place on loom
- Clutch brake easily adjusted for uniform air gap
- Water-shedding stator for protection against humidity
- Non-hygroscopic Mylar* polyester film insulation system
- Formex** magnet wire for resistance to physical breakdown
- Non-wicking permanently numbered leads

840-1

Reg. Trade-mark of DuPont Co. ***Reg. Trade-mark of General Electric Co.*

Progress Is Our Most Important Product

GENERAL ELECTRIC

ANHEUSER-BUSCH, INC.

ANHEUSER-BUSCH, INC.

Sign of highest quality

Hope You Plan To Attend The

SOUTHERN TEXTILE CONVENTION

COME VISIT US IN BOOTH 512—TEXTILE HALL

Oct. 1, 2, 3, 4, & 5 at Greenville, S. C.

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465 California

CAMBRIDGE, MASS.
111 Sixth Street

PHILADELPHIA, PA.
328 E. Chelten Ave.

SUPPLIERS News
WHAT THEY ARE DOING

the New York offices. He is succeeded in New England by Robert E. Mulcahy, formerly a product development engineer in the company's Chesterfield Plant. Added to the staff of fiber sales and service is Joe H. Christian, assigned to the Greensboro office; Fabian P. Barch and Harry A. Greene were recently assigned to the fiber application lab at Chesterfield Plant as textile technicians.

A new building under construction in West Caldwell, N. J., for **The American Rieter Co., Inc.,** will include a show room for exhibition of textile machinery (in operation) manufactured by Joh. Jacob Rieter & Co., Ltd., Winterthur, Switzerland. It is expected that maintenance and spare parts service to customers will be improved when the new building is occupied.

Dr. Ernest Hart, a chemist, is now president of **Food Machinery and Chemical Corp.,** with headquarters in San Jose, Calif. Two of the firm's three executive vice-presidents also are chemists: Dr. Carl F. Prutton, in charge of chemical divisions; and John D. Fennebresque, with long range planning and organization duties in the corporate offices. Assisting Dr. Prutton is another chemist, Al Loeffler, who becomes a vice-president.

Field representative for the **L. O. F. Glass Fibers Co.,** R. H. Barnard, Jr., has been promoted to district manager of the Charlotte, N. C., area. * * * E. A. Turner has been elevated to the position of Chicago, Ill., district sales manager, from that of field representative.

Southeastern Loom and Machine Works, a division of Abney Mills, is building a new one-story plant on West Alexander Ave., in Greenwood, S. C. It is expected that the move from Greenville can be completed by December 31, 1956. The completed building will contain approximately 130,000 sq ft of floor space and will be air-conditioned.

Jack H. Firpo, executive vice-president of **Francolor, Inc.,** was host at the firm's official opening on June 14. Exhibits featuring pictures of the parent company's four factories in

(Continued on page 76)

CROSS SECTION VIEW SHOWING MACHINING DETAILS AND BUSHING PLACEMENTS

WE SPLIT A BOBBIN TO PROVE A POINT

VERMONT SPOOLS AND BOBBINS KEEP PRODUCTION HIGH . . . MINIMIZE REPLACEMENT

Uniquely crimped brass bushings . . . found only in VERMONT bobbins—are your insurance against unnecessary time losses . . . your guarantee of longer, more useful bobbin life. Made from hard-rock maple, carefully kiln-dried and lacquered to keep moisture out, VERMONT bobbins are reamed for even greater protection . . . so that the bobbin will not grab the spindle . . . is always smooth running.

Contact your nearest VERMONT SPOOL & BOBBIN representative. He can explain to you how easily and inexpensively you can have your specific needs filled to order . . . to your exact requirements.

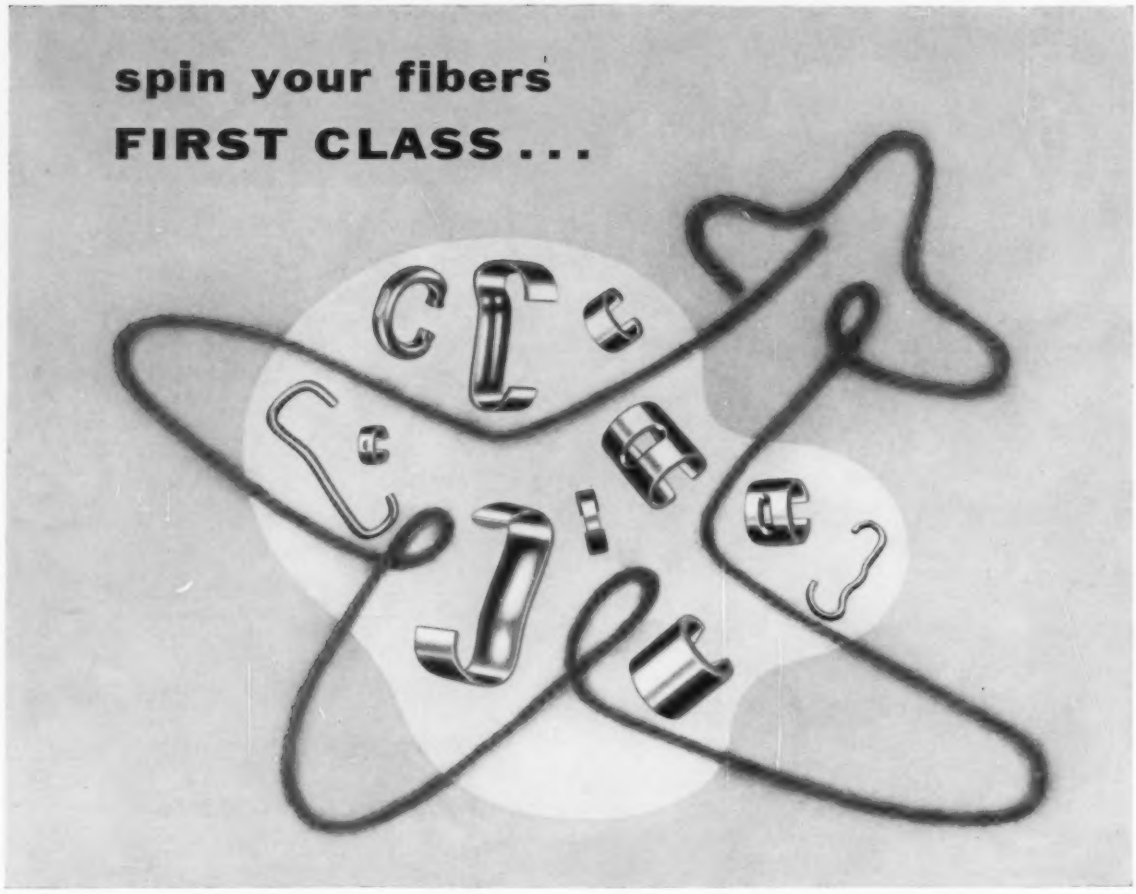
5 Features You Want

- Longer Life
- True, Free-Running
- Brass Bushings
- Skilled Workmanship
- Competitive Price

Represented in the East by Atkinson, Haserick & Co., Boston 6, Mass., and Watson & Desmond, P. O. Box 1954, Charlotte, N. C.

Vermont SPOOL AND BOBBIN CO.

234 SO. CHAMPLAIN ST.—BURLINGTON, VERMONT — *SUPERIOR SPOOLS AND BOBBINS SINCE 1906*



via NATIONAL-STERLING Ring Travelers!

If frequent "ends-down", lost production, and poor yarn quality have you ***up in the air,*** it will pay you to consider the advantages of using National-Sterling Ring Travelers.

Precision balanced, scientifically tempered and finished National Travelers consistently deliver more pounds of first class yarn at higher spindle speeds and with a minimum of downtime. Whatever you're running — synthetic, blends or natural fibers — you can be sure of finer spinning and twisting when you install National-Sterling Ring Travelers.

Let an experienced National-Sterling Engineer help you select the right traveler for your particular spinning or twisting operation now. Write, wire or phone National Ring Traveler Company and Sterling Division, **354** Pine Street, Pawtucket, R. I. Southern Office and Warehouse, P. O. Box 112, Gaffney, S. C.

See us at Booth 214, Southern Textile Exposition, Greenville, S. C.

NATIONAL
Sterling
RING TRAVELERS

F. L. CHASE, JR., *Pres. & Treas.* L. E. TAYLOR, *So. Mgr.*

FOR SPINNING AND TWISTING ALL NATURAL AND SYNTHETIC FIBRES

NATIONAL RING TRAVELER CO., PAWT. R.I., U.S.A.

Courtaulds' answer to the demand
for more vivid color

COLORAY TURQUOISE AND PEACOCK BLUE

No other colors in the blue-green family can match the intensity and purity of Coloray turquoise and peacock blue.

These ultra brilliant colors are incomparable for dramatic flecks, nubs, and other decorative effects in fabric. They are highly practical for blazing solids that clean as bright as new. Because . . . like all Coloray colors . . . turquoise and peacock blue deliver peak colorfastness as well.*

What's the reason? Courtaulds' method of caging color inside Coloray rayon fiber. Courtaulds' method of solution-dyeing. The method that also insures lowest color cost for highest color performance.

In every way, it pays to work with Coloray.

***Tests under AATCC procedures prove amazing fastness powers of Coloray Turquoise and Peacock Blue.**

Lightfastness rating – *better* than Class L8, top AATCC rating—no fading after *500 hours* of exposure to South Florida tropical sunlight.

Washfastness rating – Class 5 – no color change or staining under severest wash conditions – at 180° – with alkaline soap and bleach agent.

Dry crocking rating – Class 5 – no rubbing off of color perceptible whatsoever. ***Wet crocking,*** just as good in Turquoise, about Class 3 in Peacock Blue.

COURTAULDS'

COLORAY

Rayon fiber with Captive Color . . . *"can't escape!"*

For further information, write:

COURTAULDS (ALABAMA) INC. • *first name in man-made fibers, first name in solution-dyeing*
600 Fifth Avenue, New York 20 • Greensboro, N. C. • Le Moyne Plant, Mobile, Ala.

Geared TO MEET INDUSTRIES' DEMAND FOR HIGH QUALITY CONVEYING MACHINERY

Typical Mathews truck-haul system designed to provide continuous flow warehousing.

Whatever the conveying problem might be—whether it involves the handling of a few pounds or many tons —**Mathews** builds the equipment to do the job. You can be sure of this service, from proposal through installation, when you buy **Mathews Conveyers.** And, of course, you get the benefit of over **fifty years' experience** in continuous flow material handling.

50 YEARS OF MC MECHANIZED HANDLING

MATHEWS CONVEYER COMPANY

GENERAL OFFICES . . . . ELLWOOD CITY, PENNSYLVANIA

PACIFIC COAST DIV., MATHEWS CONVEYER COMPANY WEST COAST, SAN CARLOS, CALIFORNIA

CANADIAN DIVISION . . MATHEWS CONVEYER COMPANY, LTD. PORT HOPE, ONTARIO

Engineering Offices or Sales Agencies in Principal American and Canadian Cities
Export Representative—Foreign Trade Division of New York Hanseatic Corporation

MATHEWS

SUPPLIERS News — WHAT THEY ARE DOING

(Continued from page 72)

France were shown, and brochures acquainting the textile industry guests with the company were distributed.

National Starch Products, Inc., has elected to its board of directors James Dillon, vice-president in charge of the synthetic resin division. The firm has completed an expansion program which included construction of a plant at Meredosia, Ill., for the polymerization of vinyl acetate.

James D. Cummings has joined **North American Rayon Corp.** in a sales capacity which will include sales for American Bemberg and Skenandoa Rayon Corp. He will work

Mr. Cummings

with H. B. Summerell, southern district sales manager, in the Greensboro office. Mr Cummings was previously with Celanese Corp. of America.

During the Southern Textile Exposition in Greenville, S. C., **Proctor & Schwartz, Inc.,** will have available in Room 234, at the Poinsett Hotel, sound color motion pictures of Proctor carding and blending equipment in action. One of these films, titled "Short Cut to Fine Yarn" shows Proctor blending and synthetic carding equipment in operation in a southern mill. At the Spartanburg, S. C., branch shop, Proctor will have set up for operation a working unit of blending equipment for synthetic fibers, comprising three feeds, long apron, blending opener and ceiling condenser. Mill men are invited to submit test lots for blending.

Refined Products Corp. announces the appointment of Neiko I. Vassiloff as industrial division representative for northern Ohio. * * * Harold A. Sweet, Jr. has been named director

(Continued on page 287)

CROPPING AND SHEARING MACHINE

MONFORTS SGP

Maximum efficiency

through highest possible cutting density

supported by intensive pre-cleaning

achieved by separate

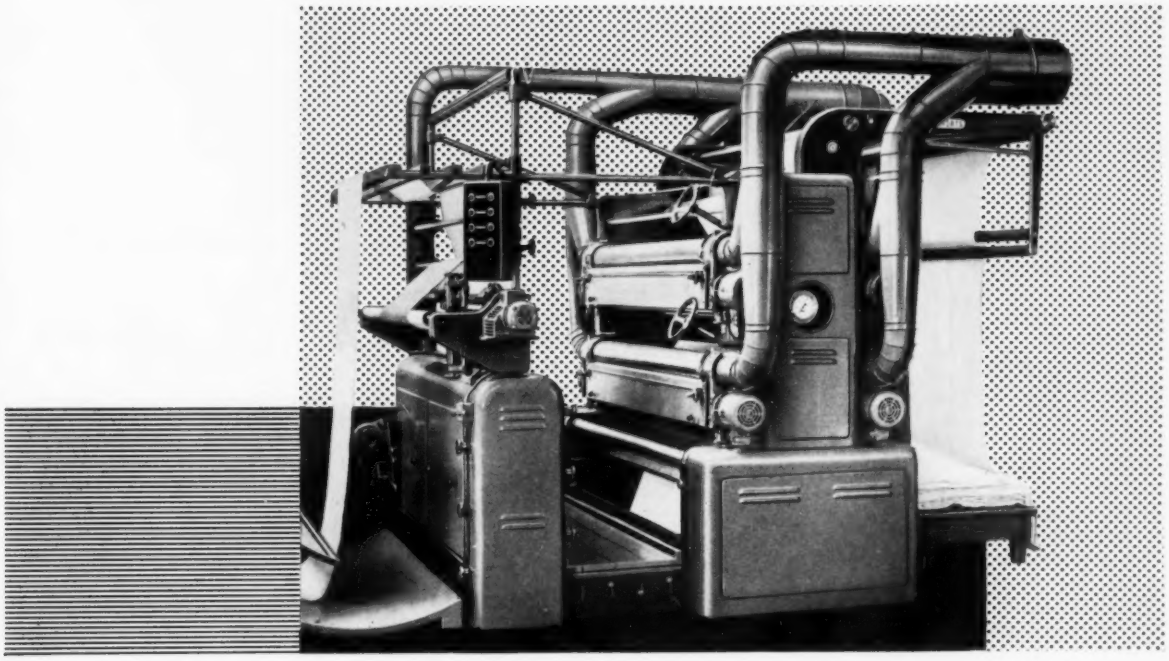
and independent cleaning unit

Cloth speeds steplessly adjustable

up to 100 yards per minute

Special arrangements for continuous

flow operation

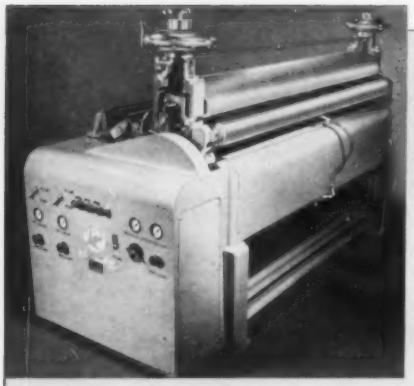


Agencies:

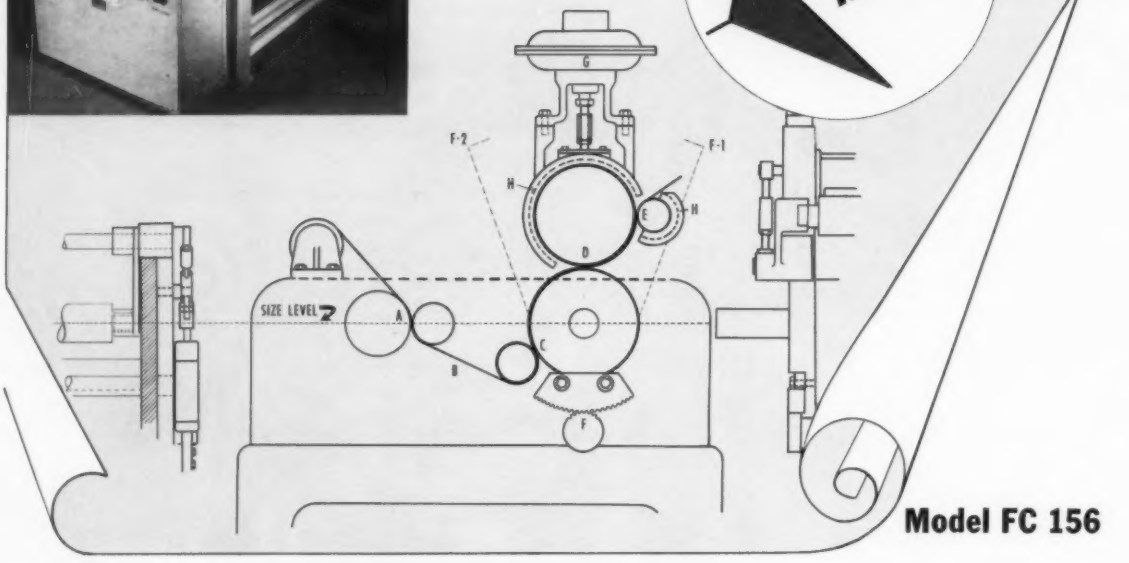
U. S. (Northeastern St.): TEXPLANT CORPORATION 695 Summer Street Stamford, Conn.

(Southeastern St.): COCKER Machine and Foundry Co. Gastonia, N. C.

Canada: CROWTHER LIMITED 212—214 Victoria Ave. Westmount, Montreal 6, Que.



The SIZE MASTER*



Model FC 156

... a new concept in sizing

The New Cocker Size Master is not just an improved size box, but a new concept in controlled penetration and coating warp yarns. It embodies principles never before employed in sizing equipment which give greater flexibility and more even penetration. Its action is shown in the drawing above.

a. Air trapped between fibres is squeezed out immediately before yarn enters size.
b. Just as a sponge which is squeezed before immersion will absorb more water more easily and completely, the yarn will absorb more size.
c. Size is padded in the usual manner, as well as under the solution.
d. Excess size is squeezed out.
e. Rubber covered dresser roll removes the size left on the side which was in contact with the lower stainless steel roll.

Auto-Positioner Roll

This tremendously valuable device automatically compensates for changes in speed by synchronized changes in position and pressure of the top rolls.

f. Speed compensating rocker action automatically swings to position f-1 at crawl, when size pick-up is low — thus allowing yarn more travel before excess is removed. As speed increases the unit moves to f-2, decreasing travel and removing more excess size.
g. Roll pressure is synchronized with this compensating rocker action. It decreases at low speeds — increases at high.
h. **THE EQUILIBRATOR**** This greatly reduces lapping and napping. On ordinary equipment the top and dresser roll temperatures are usually about 18° lower than those in the size box, thus permitting some hardening of the size. Steam jackets on the EQUILIBRATOR automatically moisten and maintain temperatures on the rubber finishing rolls.

The Cocker Size Master can be operated with dry nip if desired. It has been running in test mills for over three months with perfect results and *without a single lap-up*. Capacity approximately 20 gal. Write for full information on this revolutionary equipment today.

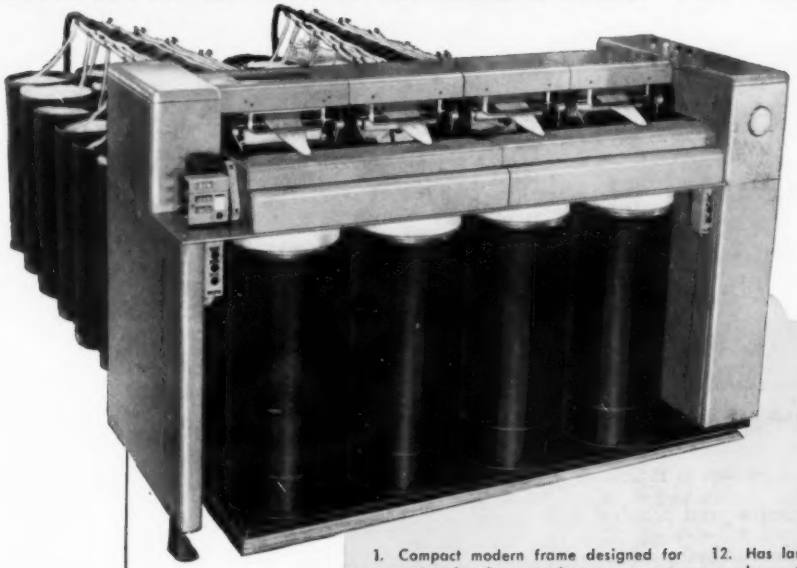
THE LEADER COCKER AROUND THE WORLD

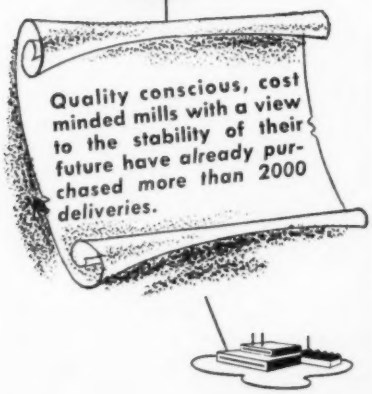
Machine and Foundry Co., Gastonia, N. C.

WORLD'S LARGEST DESIGNERS AND BUILDERS OF COMPLETE WARP PREPARATORY EQUIPMENT

*Reg. Trade Mark
**Patented

20 Good Reasons Why
SACO-LOWELL'S *New*
VERSAMATIC*
DRAWING FRAME BELONGS IN YOUR MILL




Quality conscious, cost minded mills with a view to the stability of their future have already purchased more than 2000 deliveries.

1. Compact modern frame designed for cost-saving large packages.
2. Front Roll delivery of 250 to 300 feet per minute under average mill conditions.
3. The four deliveries constitute a complete unit permitting flexibility of arrangement and high operating efficiency.
4. Sliver regularity is equal to or better than that obtained from conventional frames operated at low speeds.
5. All rolls are driven independently.
6. Has patented automatic self-cleaning top and bottom clearers with built-in static conductors.
7. Electric top motions in five positions for better control with indicating lights for increased efficiency.
8. Regular mill runs show an efficiency up to 93%.
9. Individual motor drive is equipped with brake for quick stops.
10. Rigid unit construction of the all-steel chassis assures correct alignment and minimum maintenance.
11. Smooth exterior contours reduce waste, fly accumulation and minimize cleaning.
12. Has large jack shaft under the roller beam to transmit power to the foot-end gearing.
13. Large diameter roll and intermediate gears prevent chatter, provide simple and easy adjustments and facilitate proper meshing.
14. Anti-friction bearings throughout the frame.
15. Lifting rolls and creels for 6 or 8 ends up.
16. Advanced design over arm spring weighting which guarantees accurate pressure.
17. Proven Shaw principle drafting elements can be 3 Over 4 or 4 Over 5.
18. Anti-friction tube gears with new long life high speed drive, eliminating all oiling.
19. Advanced design turntables eliminate lifting at the doffing operation.
20. Gives highest production of quality sliver by every standard — per delivery — per man hour — per square foot of floor space — per horsepower.

For further information and demonstration call your nearest Saco-Lowell office.

***VERSAMATIC DEFINED**

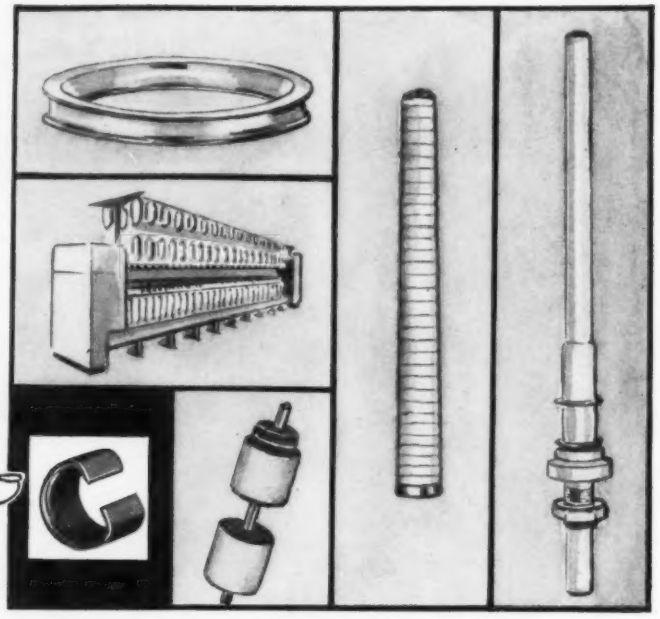
VERSAtile . . . adaptable to all fibres, both synthetic and natural, from ¾" to 3".

autoMATIC . . . in all ways except for creeling and doffing.

SACO-LOWELL
60 BATTERYMARCH STREET, BOSTON 10, MASS.
Shops at BIDDEFORD and SACO, MAINE, and SANFORD, N. C.
SALES OFFICES: CHARLOTTE • GREENSBORO • GREENVILLE • ATLANTA

To solve a spinning problem

Start with the TRAVELER



It may be the only change needed

A traveler change is the easiest to make —
and you may solve your problem right there.
Whether your problem is bad running work...
or a venture into new fibres or blends, or
larger packages or increased speeds...
a call to your U. S. Representative will
bring you intelligent suggestions that may
go a long way toward solving the problem.
He also brings you the finest travelers
produced. Call on U. S. Count on U. S.

U. S. Representatives are at your service.

R. V. BORDEN, W. H. ROSE
Greenville, S. C. Box 1048 Phone 3-0915

H. J. SMITH
Providence Box 1187 GAspee 1-0100

O. B. LAND
Athens, Ga. Box 1187 LIberty 6-1647

L. H. MELLOR, JR.
Mid-Atlantic States, 123 Tready Rd.
Drexel Hill, Pa. HIlltop 6-1563

H. R. FISHER
Concord, N. C. Box 83 Phone 2-8930

U. S. RING TRAVELER CO., 159 Aborn St., Providence, R. I.
Southern Warehouse: Greenville, S. C.

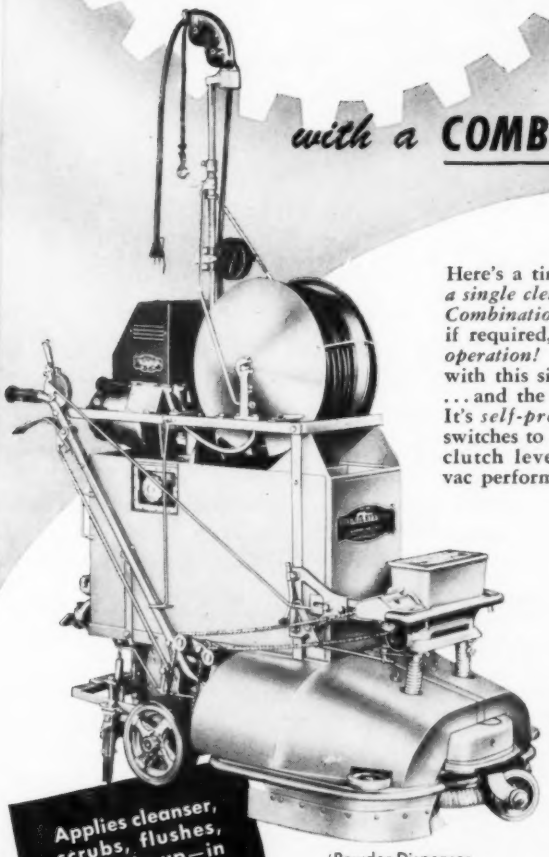
A Style and Size for Every Yarn and Fibre

Packaged to Arrive

and Keep Perfectly

MECHANIZE all Scrubbing Operations into 1

with a COMBINATION SCRUBBER-VAC!



Applies cleanser, scrubs, flushes, and picks up—in ONE operation!

(Powder Dispenser and Level Cable Wind are accessories)

Here's a timely answer to the need for reducing labor costs—*a single cleaning unit that completely mechanizes scrubbing.* A *Combination Scrubber-Vac* applies the cleanser, scrubs, flushes if required, and picks up (damp-dries the floor)—*all in one operation!* Maintenance men like the convenience of working with this single unit... the thoroughness with which it cleans ...and the features that make the machine simple to operate. It's *self-propelled,* and has a *positive* clutch. There are no switches to set for *fast* or *slow*—slight pressure of the hand on clutch lever adjusts speed to desired rate. The powerful vac performs quietly.

Finnell's 213P Scrubber-Vac at left, for heavy duty scrubbing of large-area floors, has a 26-inch brush spread. Cleans up to 8,750 sq. ft. per hour (and more in some cases), depending upon condition of the floors, congestion, et cetera. (The machine can be leased or purchased.) *Finnell* makes a full range of sizes, and *self-powered* as well as *electric* models. From this complete line, you can choose the size and model that's exactly right for *your* job (no need to *over-buy* or *under-buy*). It's also good to know that *a Finnell Floor Specialist and Engineer is nearby* to help train your maintenance operators in the proper use of the machine and to make periodic check-ups.

For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 1310 East St., Elkhart, Ind. Branch Offices in all principal cities of the United States and Canada.

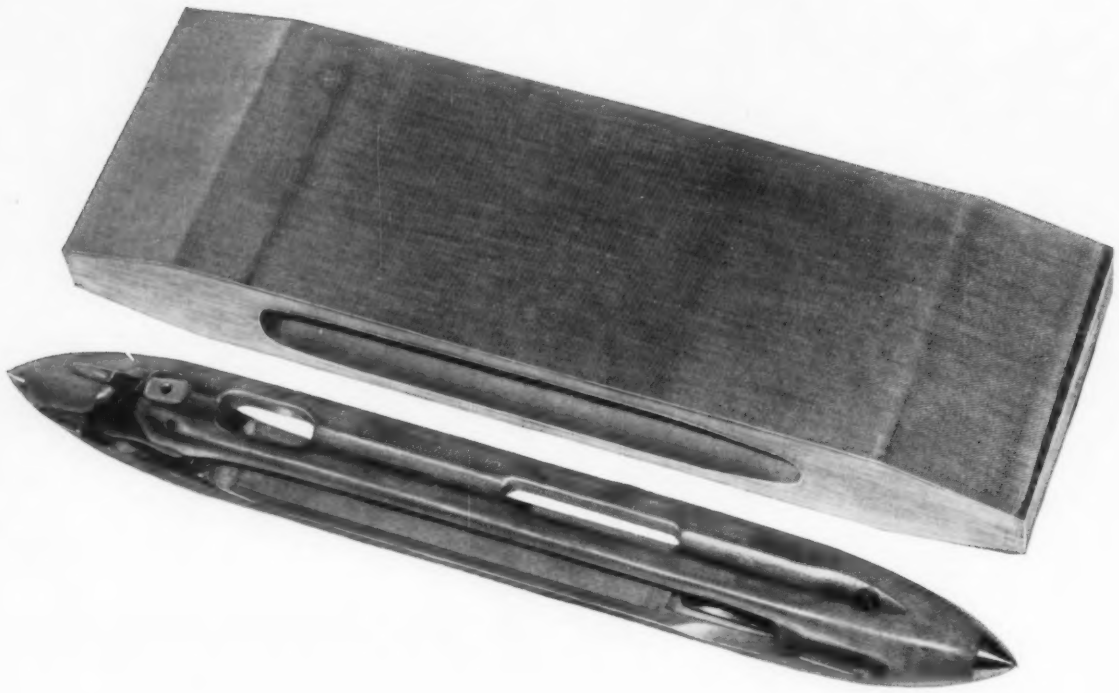
FINNELL SYSTEM, INC.

Originators of Power Scrubbing and Polishing Machines

Everything FINNELL for Floor Care

BRANCHES IN ALL PRINCIPAL CITIES

See the Finnell Exhibit • **Southern Textile Exposition** • **Greenville, S. C.** • **Oct. 1-5** • *Space 110*



New **MICARTA**® plastic shuttle lasts at least 3 times as long as wood

Rugged Westinghouse Micarta molded-plastic shuttles reduce your weaving room costs by giving you longer shuttle life and lower maintenance costs.

When you consider what conventional shuttles can cost you in breakage of shuttles, picker sticks and other vulnerable parts, increase in off-quality cloth, loss of production and higher labor and repair costs, it's easy to figure what long-lasting Micarta shuttles can mean to your weaving room.

Shuttles are produced out of a solid, uniform piece of grainless molded plastic.

There is no cracking or breaking . . . no snagging of delicate fabrics . . . no need to worry about splintering.

Westinghouse does not make the finished shuttle, but supplies shuttle forms to the Southern Shuttles Division, Steel Heddle Mfg. Co., Greenville, S. C., which produces economical, long-life Micarta shuttles under the trade name Duramold. Make sure Micarta plastic is used in the shuttles you buy for your mill. J-06633

See Westinghouse products for the textile industry at the Southern Textiles Exposition, Greenville, S. C., October 1-5 . . . Booths 445-6-7.

WATCH WESTINGHOUSE!

COVER THE PRESIDENTIAL CAMPAIGN ON CBS TELEVISION AND RADIO!

How much does it Cost to be a Good Neighbor?

This is the third in a series of advertisements based on a technical paper by B. W. Dickerson, Sanitary Engineer, Hercules Powder Company. A complete copy of the report or additional technical data on CMC can be obtained by writing directly to Hercules.

Pollution control in textile finishing operations can be expensive. If abatement is to be achieved by the biological treatment of mill wastes, management is faced with a capital outlay for plant construction and the additional monthly cost of operating the treatment plant.

Is there any way of being a good neighbor without such prohibitive cost? Some mills have found the answer in CMC Warp Size. Years of research plus actual use in mills indicate the value of CMC Warp Size as a means of reducing pollution. In many instances, this can be accomplished without resort to a waste treating plant. Where the pollutional load is exceptionally high, introduction of CMC Warp Size into the process significantly reduces the size of the treatment plant required.

A 2 to 1 starch-CMC Warp Size combination can substantially reduce BOD (Biochemical Oxygen Demand) while also reducing add-on and the need for enzymes in the desizing process. A hypothetical case best illustrates how CMC can be economically employed to provide pollution abatement.

A typical small plant might face the necessity of reducing the BOD in its mill wastes by 30%. Accomplishing this by the construction of a treatment plant could involve a capital expenditure upwards of $250,000, *plus* annual operating expenses reaching 10% of the initial capital outlay. By the introduction of a 2 to 1 starch-CMC Warp Size combination in the warp sizing process in place of the starch previously used, add-ons can be cut almost in half. The reduction thus achieved in total waste solids, together with the significant reduction in BOD obtained when CMC Warp Size is used, would provide the desired abatement without recourse to a treatment plant. At the same time, any slight original increase in cost of introducing the starch-CMC Warp Size combination into the sizing process would be substantially less than the operating cost alone of the treatment plant that would otherwise be required.

Where the BOD is so high that CMC Warp Size alone can not solve the problem completely, the treatment plant requirements can be drastically reduced in size. That's why many mills have found in actual practice that by using CMC Warp Size it is possible to be a good neighbor at low cost.

Virginia Cellulose Department
HERCULES POWDER COMPANY
INCORPORATED
903 Market St., Wilmington 99, Del.

VT56-1

Photo courtesy of Greenville Mills, Inc.

G-R Type 631-BL
STROBOTAC $155

Short-duration, stroboscopic light flashes are simply aimed at the moving object under study . . . one knob controls the flashing rate . . . when the object appears to be "stopped", speed is read on the instrument's calibrated scale with an accuracy of 1%.

Range: 60 to 14,400 rpm direct-reading range of flash repetition rate; instrument will "stop" motion to 100,000 rpm.

Flash Duration: 5-10 millionths of a second.

Portability: self-contained, light weight, operates from 115v, 60-cycle line.

Write For Complete Literature Describing Use of Strobotac In Textile Plants.

STROBOTAC®

eliminates shading streaks in carpets

Non-uniform twist causes unsightly shading streaks in solid-color carpeting. To avoid such costly rejects, Greenville Mills uses the G-R Strobotac in a daily check of all spindle speeds, both on spinning frames and on twisters. There is no better way to insure uniformity of twist. Stroboscopic light makes possible detailed, visual examination of rapidly moving mechanical parts in a manner impossible with the unaided eye. *Any* cyclic operation can be observed as if in s-l-o-w motion . . . while the mechanism is going through its paces at full speed.

Stroboscopic light has no equal for convenient and rapid product control and maintenance in the textile mill. Defects such as slack or dirty bands and tapes, crooked idlers, slipping bobbins, bad rings, and worn travelers are easily detected and eliminated.

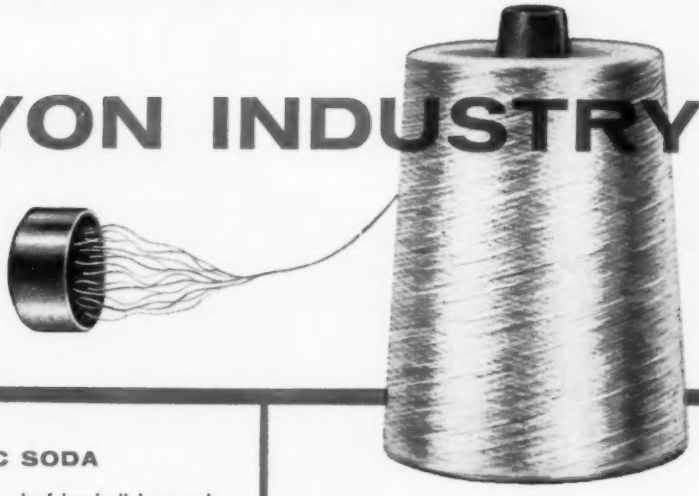
No other single device has aided producers as has this simple-to-operate, inexpensive and accurate electronic instrument. The Strobotac very rapidly pays for itself in time saved and improved quality of production output.

® GR **STROBOTAC®**

Manufactured and Sold Exclusively by . . .

GENERAL RADIO Company 275 Massachusetts Avenue, Cambridge 39, Massachusetts, U.S.A.

SOLVAY® CHEMICALS FOR THE RAYON INDUSTRY



CAUSTIC SODA

STEEPING OF PULP—Removal of hemicellulose and other impurities from the pulp.

DISSOLVING—Dissolving of Xanthated cellulose.

BLEACHING—Preparation of sodium hypochlorite for bleaching.

WATER SOFTENING—Precipitating hardness salts from water.

MINIMIZING AIR POLLUTION—Scrubbing ventilating air effluent to remove sulphur compounds.

SODA ASH

BLEACHING—Preparing sodium hypochlorite for bleaching.

WATER SOFTENING—Precipitating hardness salts.

HYDROGEN PEROXIDE

BLEACHING—Brightening the rayon yarn.

ORTHODICHLOROBENZENE

REDUCING ODOR POLLUTION—Injecting into ventilating air to reduce pollution.

SODIUM BICARBONATE

pH ADJUSTING—Adjusting pH of sodium hypochlorite for bleaching.

AMERICA'S FIRST PRODUCER OF ALKALIES — SOLVAY — 75th YEAR 1881-1956

SOLVAY PROCESS DIVISION

ALLIED CHEMICAL & DYE CORPORATION

Allied Chemical

61 Broadway, New York 6, N. Y.

BRANCH SALES OFFICES:

Boston • Charlotte • Chicago • Cincinnati • Cleveland • Detroit • Houston
New Orleans • New York • Philadelphia • Pittsburgh • St. Louis • Syracuse

For further information use Handy Return Card, Page 273

New... for Textile Processors:

An informative booklet covering the advantages of sodium chlorite in textile mill operations

Answering the increasing demand for detailed technical information on the application of Textone (sodium chlorite) in textile processing, Olin Mathieson has prepared this new booklet. Some of the uses covered are:

BLEACHING PROCEDURES

acidic and alkaline processes
cotton, synthetics, and blends

OXIDATION OF VAT AND SULPHUR DYES

jig or continuous dyeing

DYE STRIPPING

hosiery mill procedure

This valuable booklet is available free of charge to textile processors. Please write on company letterhead.

3780

Textone® is an Olin Mathieson Trademark

MATHIESON

MATHIESON CHEMICALS
OLIN MATHIESON CHEMICAL CORPORATION
INDUSTRIAL CHEMICALS DIVISION • BALTIMORE 3, MD.

WISTERIA MAUVE

one of the colors shown

in the **SUMMER 1957**

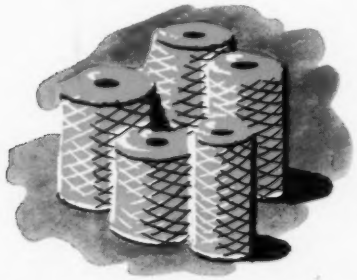
Franklin Process

COLOR NEWSLETTER

We issue four such letters a year. They contain actual dyed yarn samples showing the latest color trends, as observed by a professional color stylist.

One way to increase sales is to be RIGHT in your color selections.

Make sure NOW that you're on our Color Newsletter mailing list.

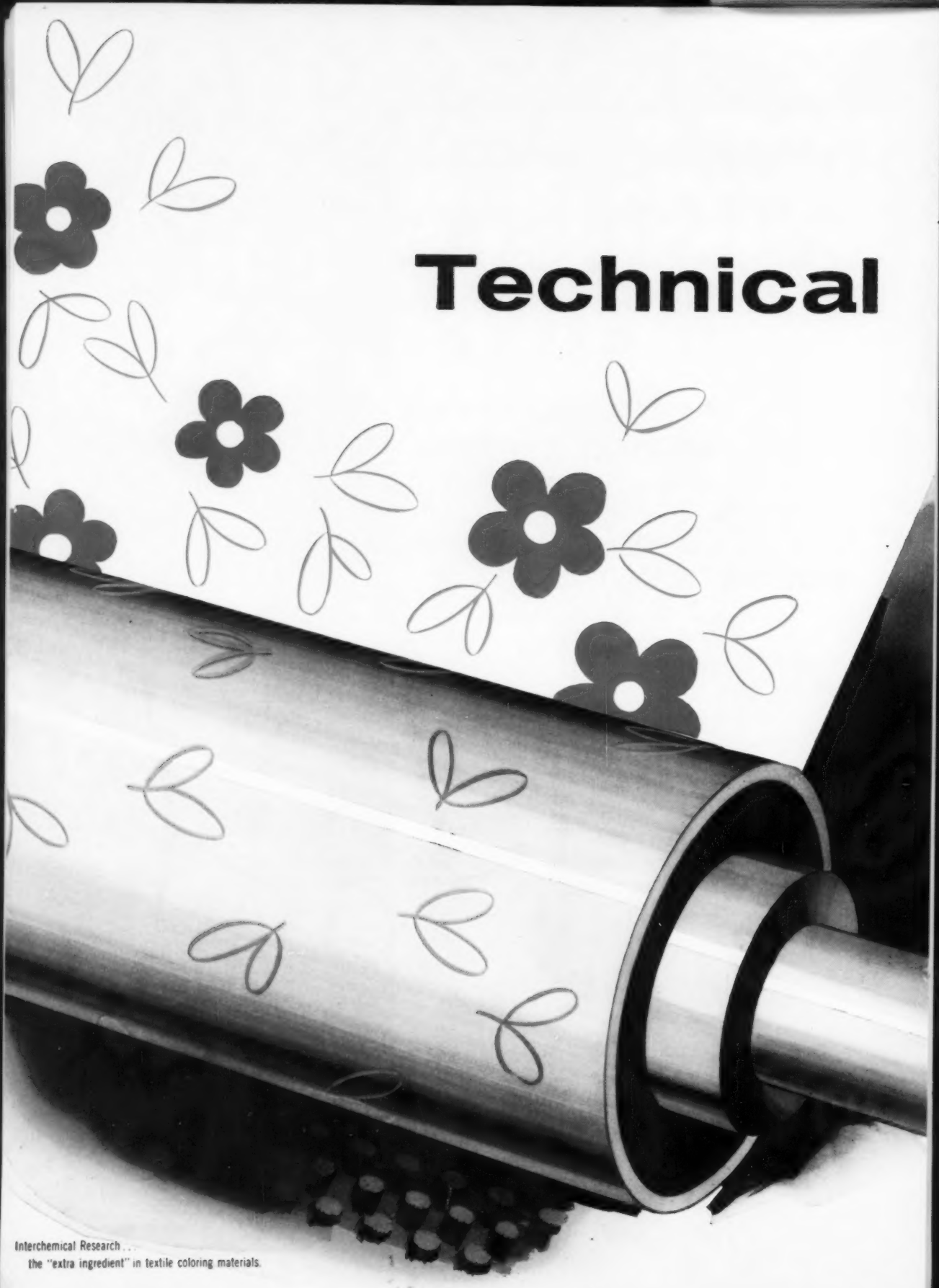


Franklin Process

YARN MERCHANTS AND LARGEST PACKAGE DYERS IN THE WORLD,
DYEING EXCLUSIVELY ON THE FRANKLIN SPRING

Providence • Philadelphia • Greenville • Chattanooga
Fingerville, S. C.
New York Representatives — 40 Worth Street

Technical



Interchemical Research . . .
the "extra ingredient" in textile coloring materials.

Triumph!

Non-Tarnishing

Aquaprint Colors

The improved Aquaprint Colors now available constitute a technical triumph in the field of fast-color printing. That's because they eliminate tarnishing . . . one of the major problems encountered heretofore in roller printing with pigmented oil-in-water emulsions. Leading machine and screen printers are using more and more Aquaprint Colors for fast-color printing cottons and synthetics. Here's why:

- Excellent runability . . . eliminate tarnishing, streaks, and snaps.
- Brilliant shades . . . exceptionally sharp marks and smooth blotches.
- Meet stringent consumer requirements for fastness to light, washing, drycleaning, and crocking.
- Unlimited color combinations when printed alongside Aridye Colors or Arigen® Dyes.
- Easy cleaning of print rollers, color boxes, furnisher rolls, blankets, screens, and other equipment.
- Produced according to Interchemical's high standards for quality and uniformity.

For latest information on the improved Aquaprint Colors, contact the Textile Colors Division office nearest you.

Aquaprint® COLORS

Aridye® COLORS

Interchem® Dyes

Interchemical CORPORATION

Textile Colors Division

Pawtucket, R.I., HAWTHORNE, N.J. Rock Hill, S.C.

Whitin-Schweiter FILL-MASTER* Filling Winder

The latest addition to Whitin's winder line, the Whitin-Schweiter FILL-MASTER Automatic Filling Bobbin Winder, is a highly versatile machine — a fully automatic, high speed, filling winder with many attractive and unusual features. Among these, a new exhaust device will be very advantageous to all mills encountering dust, lint, and fly in the rewinding process. Each supply package and tension device is housed in a transparent enclosure from which fly, etc., is removed to a dust collector.

ADDITIONAL FEATURES

- Speeds up to 10,000 R.P.M.
- Tail-less Bobbin
- Scissor and Tail Cutter eliminated
- Spindle speed adjustable over wide range for every spindle position
- Automatic empty bobbin loader or new manual or loaded multicell magazine
- New variable layer locking traverse prevents sloughing
- Quick positive adjustment for wound bobbin diameter
- Will handle bobbins up to 10⅛"

* Trade Mark

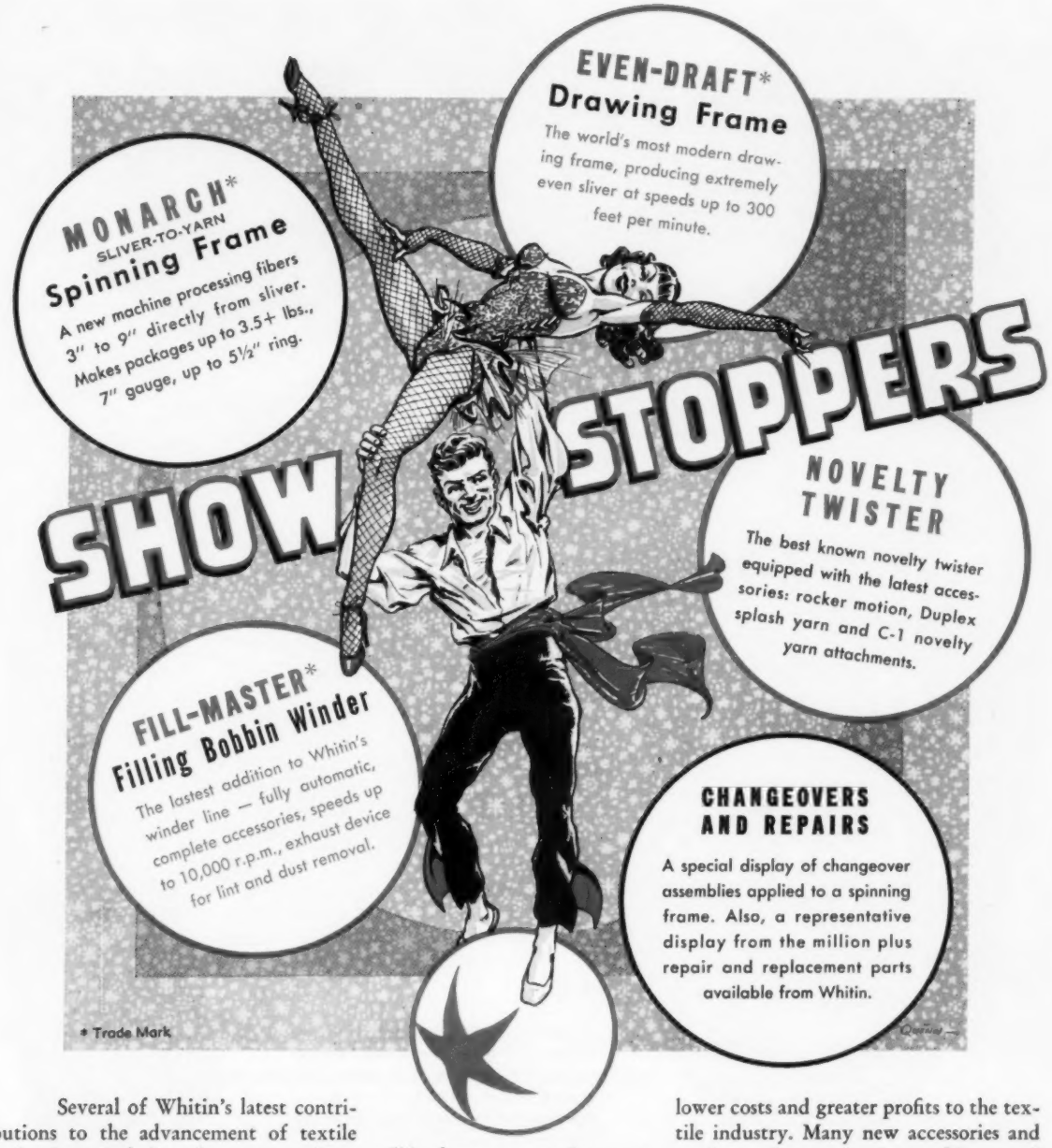
Whitin

MACHINE WORKS

Whitinsville • Massachusetts

CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.

Special sales agent: H. J. THEILER CORPORATION — Whitinsville, Mass., Spartanburg, S. C.


EVEN-DRAFT*
Drawing Frame
The world's most modern drawing frame, producing extremely even sliver at speeds up to 300 feet per minute.
MONARCH*
SLIVER-TO-YARN
Spinning Frame
A new machine processing fibers 3" to 9" directly from sliver. Makes packages up to 3.5+ lbs., 7" gauge, up to 5½" ring.
SHOW STOPPERS
NOVELTY TWISTER
The best known novelty twister equipped with the latest accessories: rocker motion, Duplex splash yarn and C-1 novelty yarn attachments.
FILL-MASTER*
Filling Bobbin Winder
The lastest addition to Whitin's winder line — fully automatic, complete accessories, speeds up to 10,000 r.p.m., exhaust device for lint and dust removal.
CHANGEOVERS AND REPAIRS
A special display of changeover assemblies applied to a spinning frame. Also, a representative display from the million plus repair and replacement parts available from Whitin.
* Trade Mark

Several of Whitin's latest contributions to the advancement of textile technology, including three new machines, will be shown publicly for the first time at the 19th Annual Southern Textile Exposition at Greenville, S. C., October 1 – 5. Embodied in these machines are developments and improvements which will mean increased production, lower costs and greater profits to the textile industry. Many new accessories and replacement parts designed to modernize machinery and increase efficiency will also be shown. These latest products of Whitin Research are the machines and equipment which are setting today the standards which will be adopted by the mills of tomorrow.

See them at the SOUTHERN TEXTILE EXPOSITION
Annex #4 • Spaces 818-820 • OCTOBER 1-5

Whitin MACHINE WORKS
WHITINSVILLE, MASSACHUSETTS

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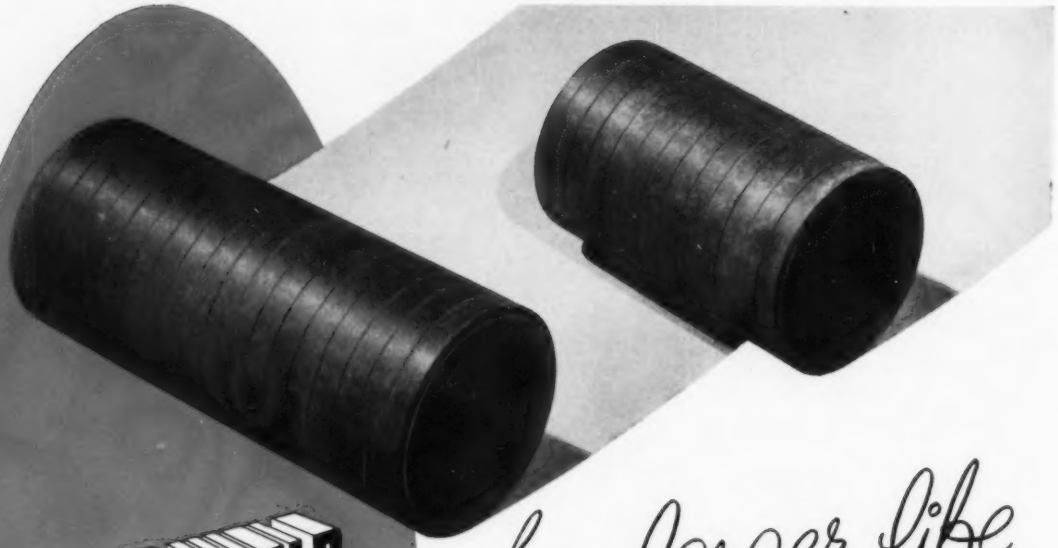

DUROWELD

REUSEABLE

CHEESE CORES

for

- ABBOTT AUTOMATIC WINDERS
- BARBER-COLMAN SPOOLERS

for longer life at less cost!

Here are superior reuseable cheese cores—made to micrometer tolerance for true balance in creating a better, firmer package. SONOCO Duroweld cheese cores will deliver at even tension, with fewer breaks, under high speed conditions. Made especially for Abbott Automatic Winders in three lengths: 4¾", 5½" and 7". For Barber-Colman Spoolers in 3¼" and 3¾" lengths. Ends can be lacquer-tipped, in choice of 18 colors, for identification. SONOCO can also furnish cheese cores for one-time use.

SONOCO's exclusive Duroweld Process has resulted in radically new, superior carriers for the textile industry. The cheese cores pictured and described on this page are typical of the precision products made possible by this process.

For complete information, consult your SONOCO sales-engineer, or write us direct.

sonoco — PAPER CARRIERS — REG. U.S. PAT. OFF.

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VISIT OUR SPACE! Southern Textile Exposition, Greenville, S. C. — BOOTH 244

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NEW *Synduction* Motor

MORE

Motor Pioneering by Allis-Chalmers makes constant speed sure and inexpensive

Constant speed from no load to pull-out regardless of load and voltage fluctuations . . . simple across-the-line control . . . fixed speed ratios for a group of synchronized drives . . . high power factor . . . high efficiency — every one of these characteristics is included in the greatest motor design advance in years, the *SYNDUCTION* MOTOR.

Here is a motor that combines the simple dependability of squirrel-cage construction with the constant speed advantage — and none of the complications — of other types of synchronous designs.

Available in all squirrel-cage enclosures and in ratings from ¼ to 40 hp, the *Synduction* motor means new operating economies at lower initial cost in many industries.

Synduction is an Allis-Chalmers trademark.

Have You An Application Requiring:

1. unvarying speed; 2. operation of several motors at fixed speed ratios; 3. adjustable speed with minimum variation at any speed setting? If so, Allis-Chalmers invites your inquiry. Contact your nearby A-C office or write Allis-Chalmers, General Products Division, Milwaukee 1, Wis., for Bulletin 51B8440.

A-C ALLIS-CHALMERS

ALLIS-CHALMERS

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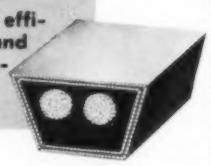
TEXROPE
Greatest Name in V-Belt Drive

The Only Complete Line of Variable Speed V-Belt Drives

Texrope Fixed-Speed Drives

For transmitting power efficiently between motor and load where speed variation is not required.



Texrope Grommet Belts

This heavy-duty construction gives from 30% to 50% longer life at no extra cost. The grommet is endless, eliminating the stiff overlap that sets up strains and causes eventual breakdown in ordinary belts. Oil-resisting and static-conducting belts also are available.

Magic-Grip Sheaves

Designed for fast, easy mounting and dismounting. You simply slip the assembled unit on the shaft, slide it to the desired position and tighten the screws which clamp the split tapered bushing on the shaft. The result is safe, smooth-running performance.

Stationary Control *Vari-Pitch* Sheave

where speed changes are infrequent and machine can be stopped to make the change.

9% to 38% Speed Variation

One *Vari-Pitch* sheave and one fixed-diameter sheave are used to get this speed variation. Here's the low-cost way of providing variable speed. No need for high-cost special motors or electrical control. Takes only a few minutes to alter pitch diameter to change speeds.

To 196% Speed Variation

Two *Vari-Pitch* sheaves — one on the driver shaft and one on the driven shaft — can greatly increase the range of speed variation. *Vari-Pitch* sheaves provide long-lasting, dependable performance, plus accurate speed control.

Motion Control *Vari-Pitch* Sheave

for applications where frequent changes must be made while drive is in motion.

Single motion-control type for speed variations to 38%. Simply turning a handwheel provides positive speed change using motion-control *Vari-Pitch* sheaves. Handwheel actuates adjusting mechanism to change sheave pitch diameter and adjust belt tension by moving motor base.

Double motion-control type for speed variations to 196%. Motion-control *Vari-Pitch* sheaves can be used on both driven and driver shafts. In this case changes in pitch diameter of motor sheave are offset by an opposite change in the driven sheave — thus maintaining constant belt tension.

Texrope, Magic-Grip and *Vari-Pitch* are Allis-Chalmers trademarks.

For further information ask your Allis-Chalmers Distributor or write Allis-Chalmers, General Products Division, Milwaukee 1, Wisconsin

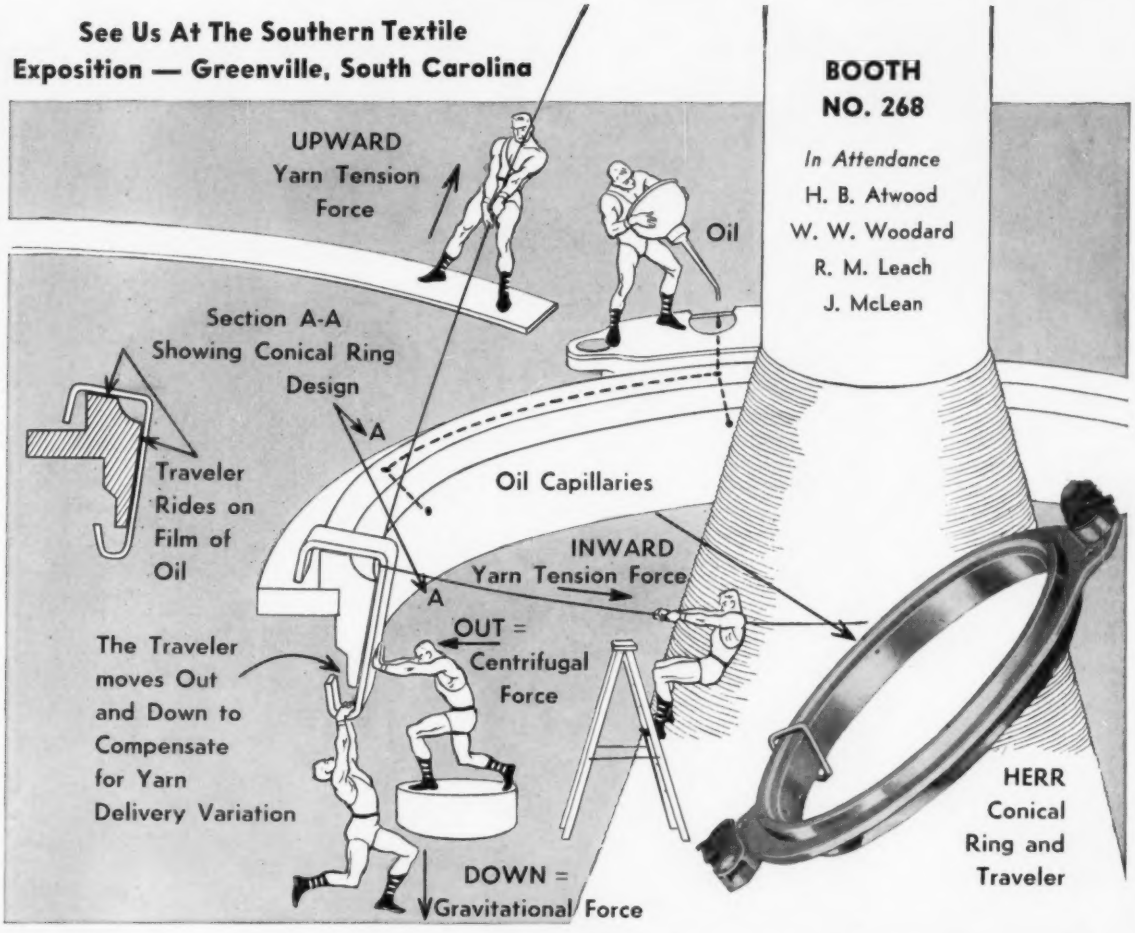
ALLIS-CHALMERS

A-4845

See Us At The Southern Textile Exposition — Greenville, South Carolina

BOOTH NO. 268

In Attendance
H. B. Atwood
W. W. Woodard
R. M. Leach
J. McLean



HERR Conical Ring Design forces the traveler out and down, equalizing the yarn tension!

RESULTS

- Yarn breakage is prevented
- Yarn is smoother
- Heavier More Uniform Doffs
- Minimizes Wear on Ring and Traveler

Ask for help on your problem.

The Herr Conical Ring Design equalizes the yarn tension forces (upward and inward) and the Traveler centrifugal and gravitational forces (outward and downward). These opposing forces are balanced and the traveler rides on the ring with minimum frictional contact.

Reservoirs feed oil to the capillary openings. The Traveler distributes this oil to form a microscopic film on which it rides permitting maximum spindle speed with minimum Ring and Traveler wear.

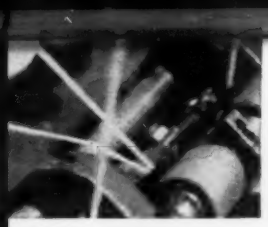
If you spin or twist confer with Herr.

Special Showing of latest developments of Herr Conical Rings to handle TUFTED YARNS, TIRECORD, WOOLENS & BLENDS

HERR

MANUFACTURING CO., INC.

310 FRANKLIN STREET, BUFFALO 2, NEW YORK



Check "dog day" lap-ups with DAYCO all weather cots

Eliminate the excessive, annoying lap-ups that always seem to bog production during hot summer "dog days." Install Dayco's amazing *all weather* cots.

One mill using Dayco Cots actually reduced lap-ups four to one over other cots in tests covering a period of the hottest, muggiest weather in the last few years.

Dayco Cots never vary in their physical properties, never become sticky, gummy. Compounded to resist the heat and humidity inescapable in many mills, Dayco Cots contain no large, rough fillers. They never develop a tackiness to retard and break the end when both heat and humidity reach extremes.

Even when it rains Dayco Cots stay dry, will not become slick, so they maintain their same smooth drafting qualities—give you more uniform, higher quality yarn.

Test Dayco's quality producing, cost reducing spinning combination—Dayco Cots and Dayco Long Draft Aprons. For information contact your Dayton Representative, or write The Dayton Rubber Company, Textile Div., 401 S. C. National Bank Bldg., Greenville, S. C.

Dayco Long Draft Aprons give up to 10% more uniform yarn. Precision ground for uniformity, they give constant, unvarying control in the drafting area. Unaffected by temperature or humidity Dayco Aprons won't stretch or take a permanent set, so Monday morning starts are positive, without hesitation. Available for both single and double apron systems.

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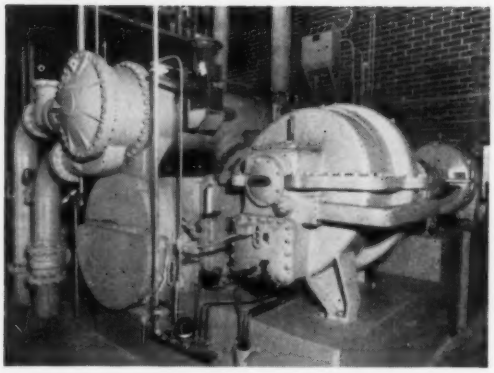
Dayton Rubber 51 YEARS OF PROGRESS

Dayco and Dayton Thorobred Textile Products for Better Spinning and Weaving

CHEROKEE TEXTILE MILLS REFRIGERATES WITH A CARRIER CENTRIFUGAL



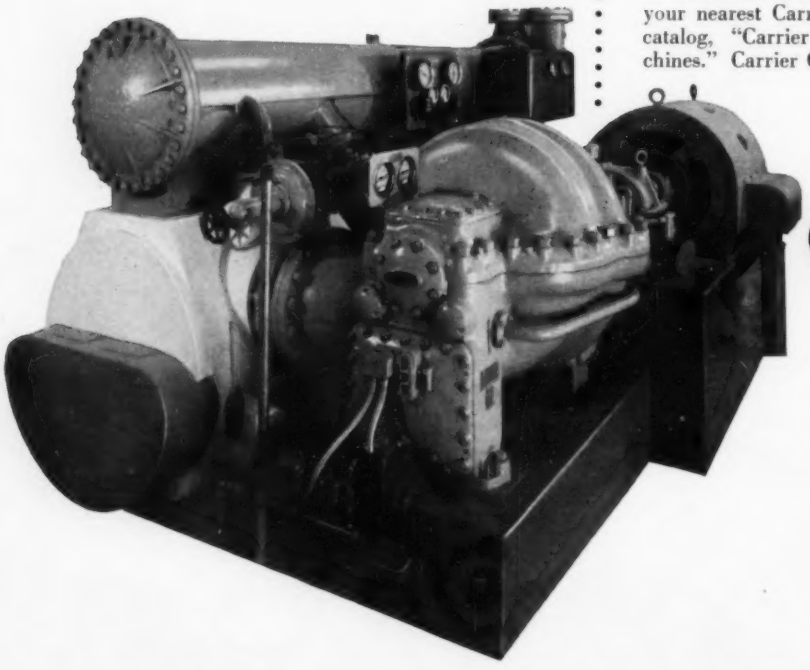
This Carrier Centrifugal Refrigerating Machine is at the heart of the several air conditioning systems serving Cherokee Textile Mills, Sevierville, Tenn. The centrifugal is driven by a 500-hp electric motor and cools 1880 gallons of water per minute from 62° to 54°. Picking, blending, preparation, spinning, carding and cloth rooms are all air conditioned. Climate in the plant office is controlled with a Carrier Reciprocating Compressor and a multi-zone air conditioning unit.

Carrier Centrifugals serve dependably, often around the clock, in many other mills—Amerotron, Deering Milliken, Stonecutter, Greenwood.

Carrier developed the first centrifugal refrigerating machine in 1922. Carrier has built more of them—by far—than all other makers combined.

For unbeatable performance, why not insist on Carrier Centrifugal refrigeration for your mill? It can serve dependably as the heart of any air conditioning system. Carrier Centrifugals are available in many sizes, from 100 to 4000 tons cooling capacity.

Make use of our experience and assistance. Call your nearest Carrier office. Or write for our free catalog, "Carrier Centrifugal Refrigerating Machines." Carrier Corporation, Syracuse, New York.

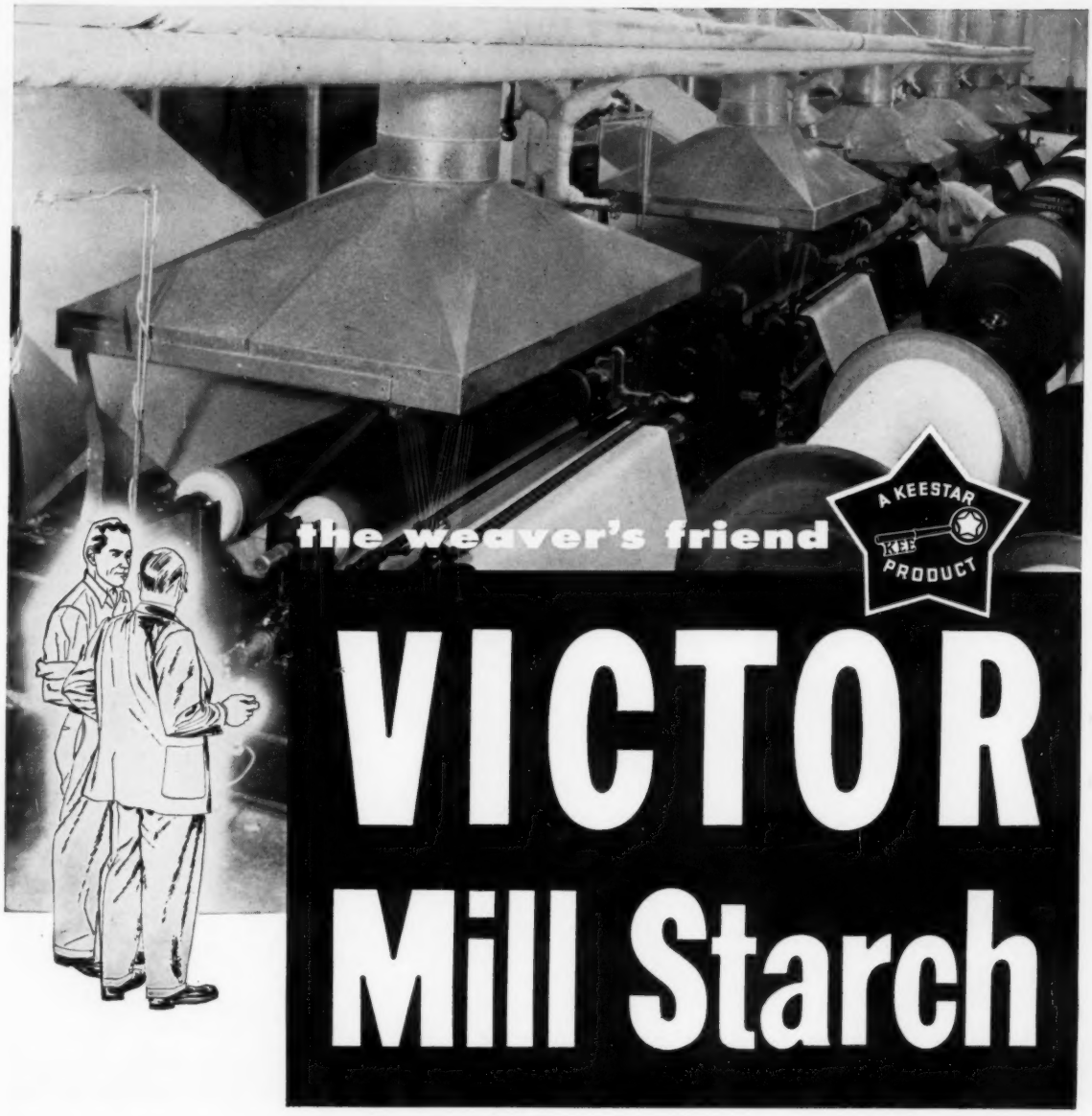


Carrier

air conditioning

refrigeration

industrial heating



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Charles C. Switzer, Vice President
TEXTILE SALES DIVISION
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GREENVILLE, SOUTH CAROLINA

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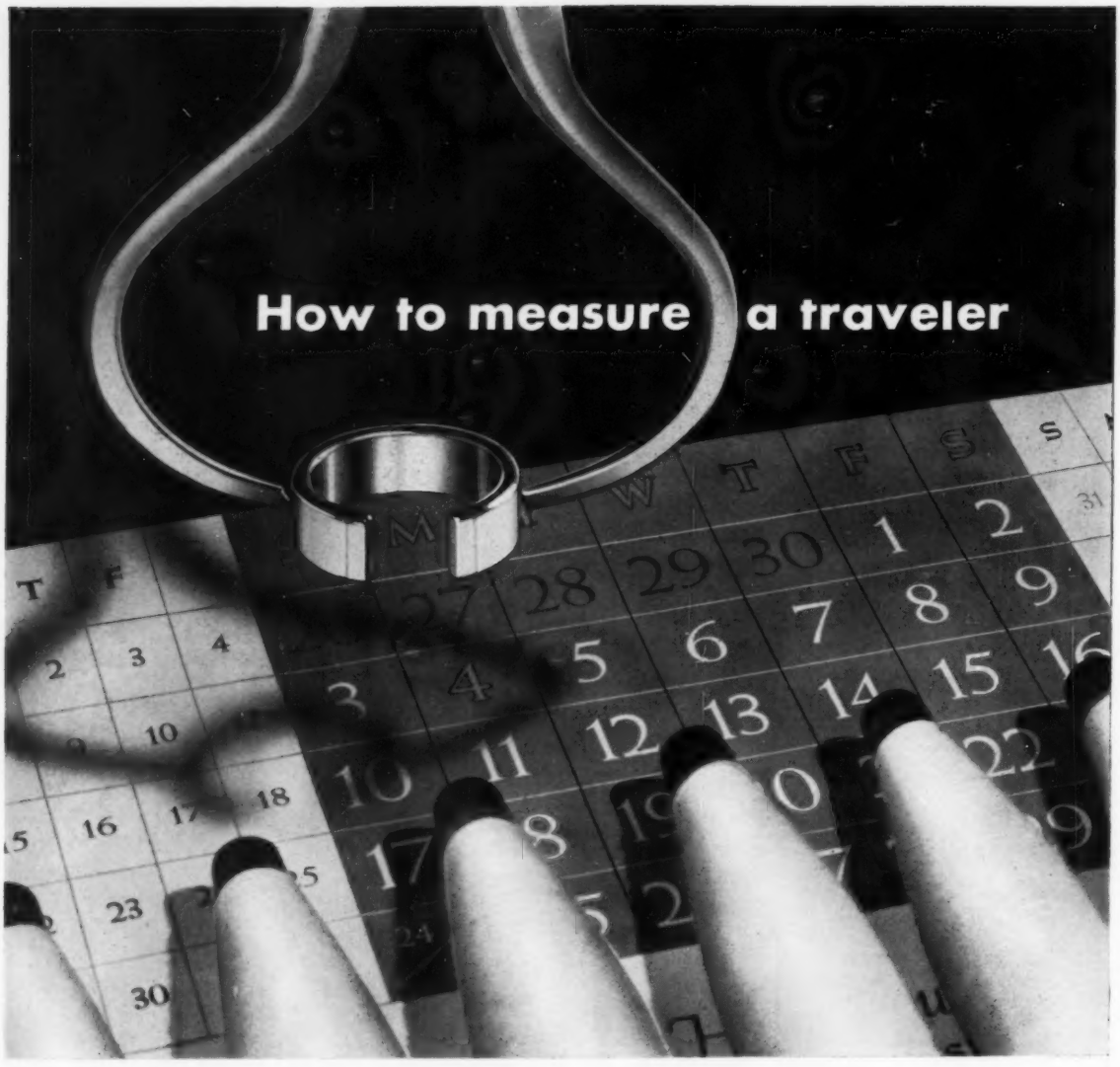
Processors of corn, wheat and blended starches for industry since 1898



Measure a traveler by days of trouble-free service, and by pounds of first-quality yarn delivered. Travelers vary widely by this test, even though they *look* alike and meet dimensional specifications.

Under *any* conditions, you can be sure of maximum production per traveler when you rely on Victor experience and quality control.

That's the reason why Victor Travelers are chosen for over 12,000,000 spindles. Mill men everywhere find that Victor quality pays off, consistently, in longer traveler life . . . with fewer ends down . . . at higher spinning and twisting speeds.

A Victor Service Engineer will help you select Travelers that measure up to maximum production on any yarn you are running. Write, wire, or phone for prompt service.

VICTOR Ring Travelers

VICTOR RING TRAVELER COMPANY

PROVIDENCE, R. I. . . 20 Mathewson Street . . . . . Tel. DExter 1-0737

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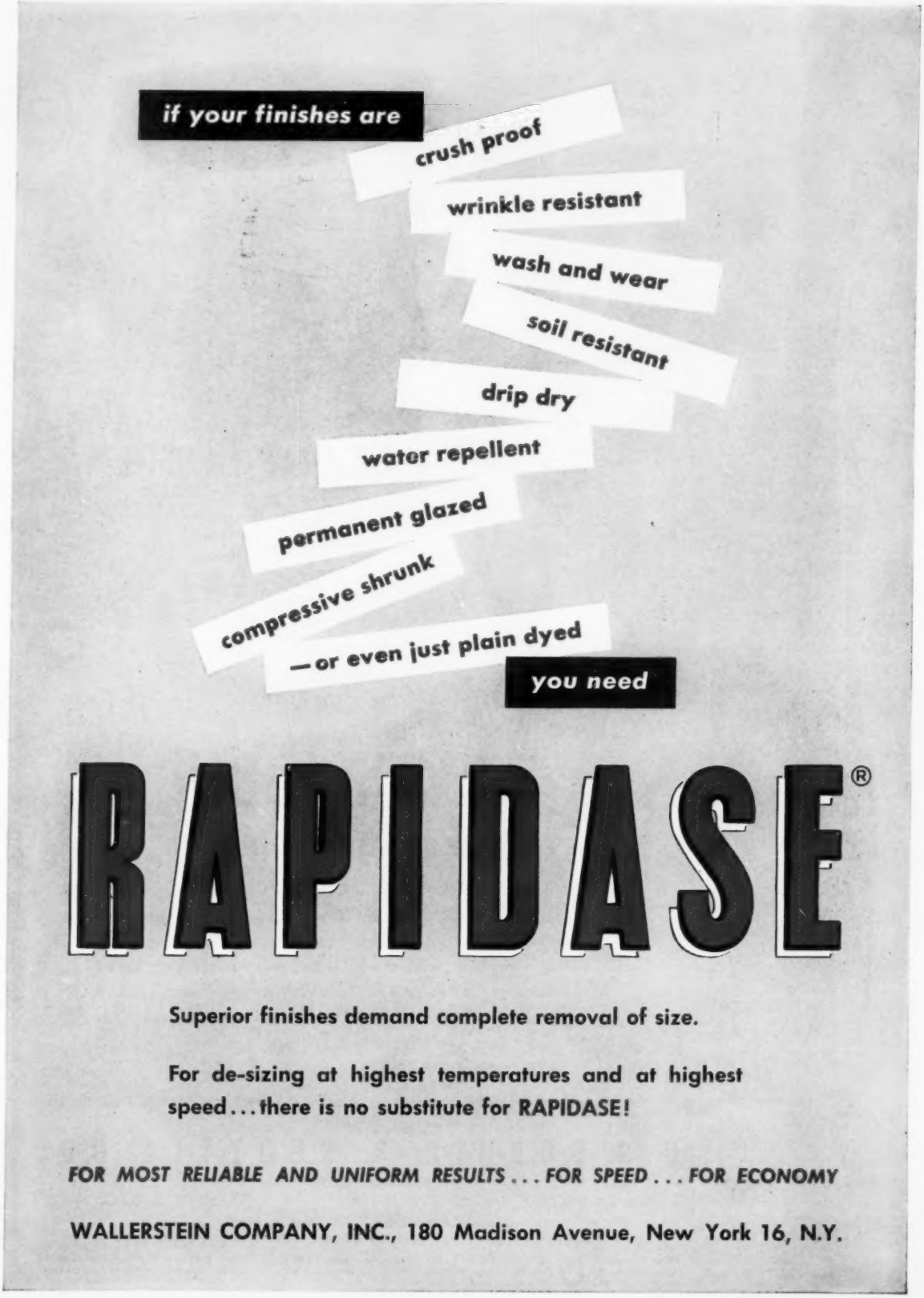
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crush proof
wrinkle resistant
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you need
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Superior finishes demand complete removal of size.
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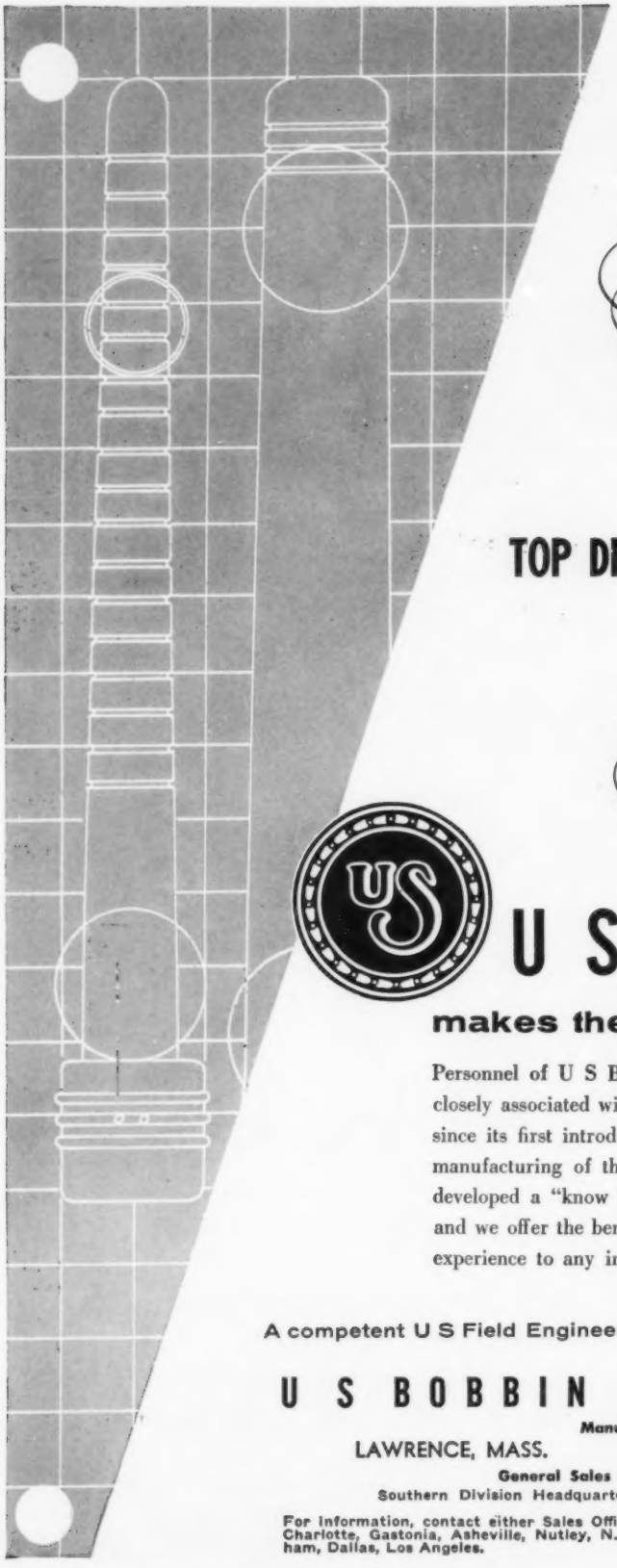
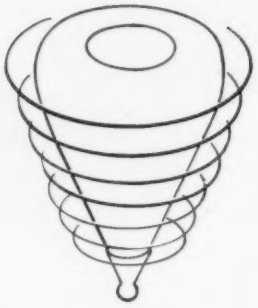
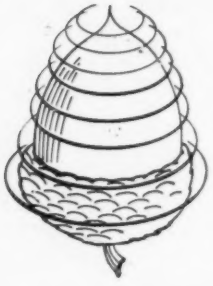




TOP DRIVE or ACORN DRIVE?



U S BOBBIN

makes the BEST of both!

Personnel of U S Bobbin & Shuttle Co. have been very closely associated with the Top Drive principle in the bobbin art since its first introduction to American mills. In the manufacturing of these quills and warp bobbins we have developed a "know how" of which we are justly proud . . . and we offer the benefits of this valuable accumulated experience to any interested mill.

A competent U S Field Engineer will contact you promptly, on request.

U S BOBBIN & SHUTTLE CO.

Manufacturing Plants

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General Sales Office LAWRENCE, MASS.

Southern Division Headquarters: 428 Birnie St., GREENVILLE, S. C.

For information, contact either Sales Office; or our Technical Field Representatives located in Charlotte, Gastonia, Asheville, Nutley, N. J., North Attleboro, Mass. Supply Houses: Birmingham, Dallas, Los Angeles.

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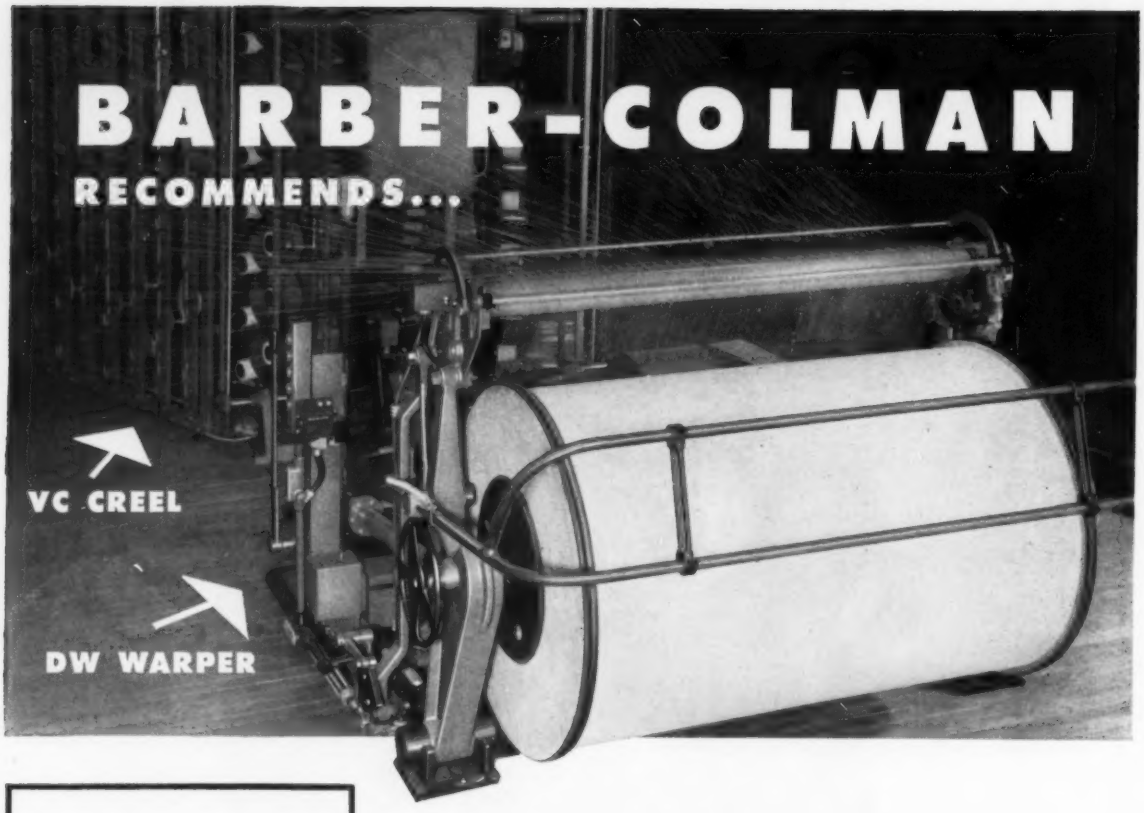
13 FACTORIES • 42 SALES OFFICES



FEATURES OF THE NEW "DW" WARPER

CAPACITY. The "DW" Super-Speed Warper will wind beams up to 40" head diameter. All types of beams up to this size can be accommodated.

LET-OFF MECHANISM. In order to insure uniform pressure on the driving drum as the beam builds up, a new let-off mechanism has been developed. This permits extremely accurate automatic gaging and maintenance of pressure, and consequent uniformity of the beam.

DOFFING. A power-operated built-in doffing mechanism helps to reduce down time to a minimum and saves effort substantially. Sturdy arms, which support the beam, pivot outward to set the beam on floor or truck as desired.

PUT A NEW "DW" WARPER

IN FRONT OF YOUR PRESENT

"VC" CREEL

It is perfectly possible to do this, and the added advantages of lower cost and greater productivity can make the investment a profitable one. Gains come in several ways — larger beams can be wound, the beams are of greater uniformity throughout, and doffing is much easier. The new "DW" Super-Speed Warper is a little deeper from front to back, since the driving drum, clutch, brake, and motor are now arranged back of, rather than underneath, the beam. With this re-arrangement, valuable improvements have been made in many important elements of the drive and controls. We suggest you discuss the possibilities for *your* mill with your Barber-Colman representative at the next opportunity.

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • WARP DRAWING MACHINES

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Du Pont's new "SOLO-MATIC" Bleaching Program

can double your production...cut costs up to 20%!

YOU GET double production, top-quality bleaching with the new Du Pont "Solo-Matic" system.

Du Pont's Single-Stage System bleaches cotton woven goods with the same effectiveness as multi-stage systems. Based on a new principle of simultaneous boiling out and bleaching of greige cloth, this system cuts over-all costs as much as 20%. Yet it is so compact that you can equal present production with half the equipment, half the floor space... or double production without adding more equipment.

YOU GET savings up to 50% in labor, steam, water, power with new Du Pont "Solo-Matic" J-Box.

Designed with fewer moving parts, Du Pont's simplified J-Box boosts quality, assures superior performance . . . provides more uniform, top-quality bleaching. Construction costs for Du Pont's new J-Box design may be reduced by as much as 20%.

YOU GET a full survey of your bleaching operation.

Du Pont's "Solo-Matic" service team is ready to help you reduce your bleaching costs through a detailed survey of your plant. These bleaching experts take samples of your bleaching bath, check steam and water consumption . . . without any interruption of production schedules. Their recommendations on how to cut costs while maintaining, and even improving, quality will be submitted to you in a confidential report.

* * *

Du Pont does not build or sell bleaching equipment but works closely with equipment manufacturers and textile processors to create improvements. The "Solo-Matic" Bleaching Program is the result of both this cooperation and of long-established Du Pont research in the textile field. To get all the facts on the "Solo-Matic" Bleaching Program . . . to find out how you can achieve new highs in efficiency and economy, mail the coupon below today.

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PEROXIDES

"ALBONE" 50
50% hydrogen peroxide

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BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

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Please ask my Du Pont Representative to call with the "Executive Summary" giving full information on the new "Solo-Matic" Bleaching Program.

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Firm_____

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Size fluidity is always right... from cooking to application with

EAGLE® Thin-Boiling Starches

Higher production rates of modern slashers make the uniform fluidity of Eagle Starches vitally important.

From size kettle to application the viscosity and strength of Eagle brand starches is uniform, assuring you top weave room performance.

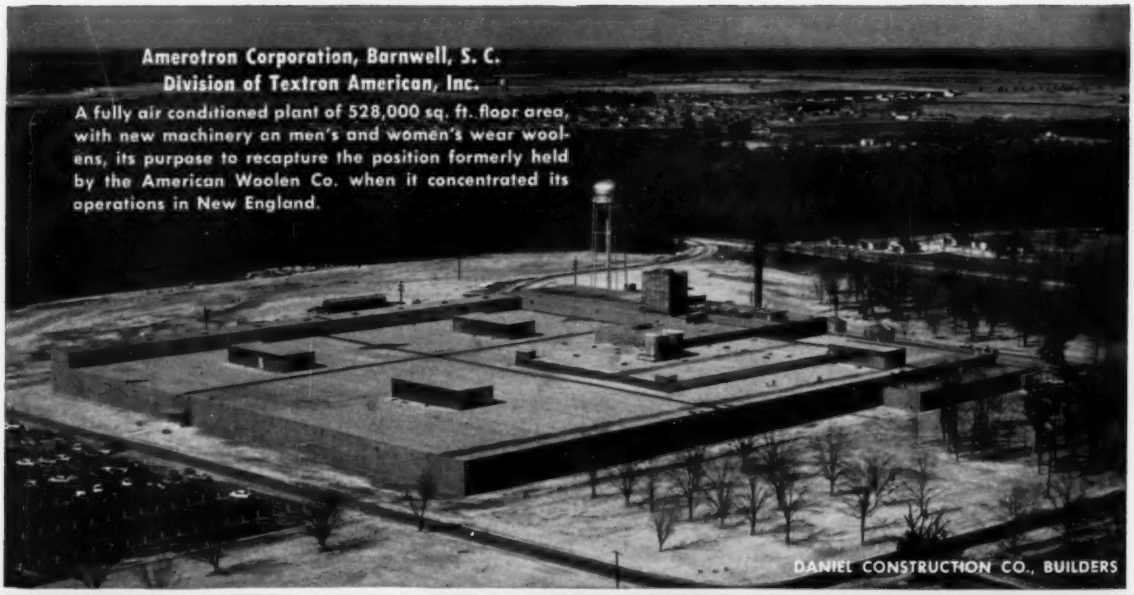
Despite continued heating, agitation and pumping, these acid-modified, thin-boiling starches consistently give the precise size fluidity you need in a modern slashing operation.

Eagle brand starches produce a uniform size mixture that penetrates the yarn evenly. Where you want more weight of size, or a thicker size film, try Eagle brand starches. They maintain their viscosity and give you a maximum of size concentration. Available in a full range of fluidities, try Eagle brand starches.

Ask the man from Corn Products. Ready to assist you in any way, he has at his disposal the most complete laboratory and technical facilities in the industry. The man from Corn Products can also provide engineering service for the installation of bulk-handling equipment. Write or phone for information, there is no obligation.

1906 • **50th ANNIVERSARY** • 1956
CORN PRODUCTS REFINING COMPANY
17 Battery Place, New York 4, N. Y.

Corn Products makes these famous starches for the textile industry—
Eagle • Foxhead • Globe • Hercules • Ten-O-Film • Globe Dextrines & Gums



Amerotron Corporation, Barnwell, S. C.
Division of Textron American, Inc.

A fully air conditioned plant of 528,000 sq. ft. floor area, with new machinery on men's and women's wear woolens, its purpose to recapture the position formerly held by the American Woolen Co. when it concentrated its operations in New England.

DANIEL CONSTRUCTION CO., BUILDERS

LOCKWOOD GREENE
PROJECTS IN . . . . .
WOOLEN and WORSTED

Lockwood Greene has completed over 500 engagements in the woolen and worsted field, and in the entire textile industry projects valued at over three quarter billion dollars.

National Spinning Company,
Washington, North Carolina

New Mill making synthetic and worsted yarns. View shows process from pindrafters through roving and spinning.

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OVER A CENTURY OF INDUSTRIAL PLANT EXPERIENCE
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Continuous management services from site selection to plant completion.

LOCKWOOD GREENE
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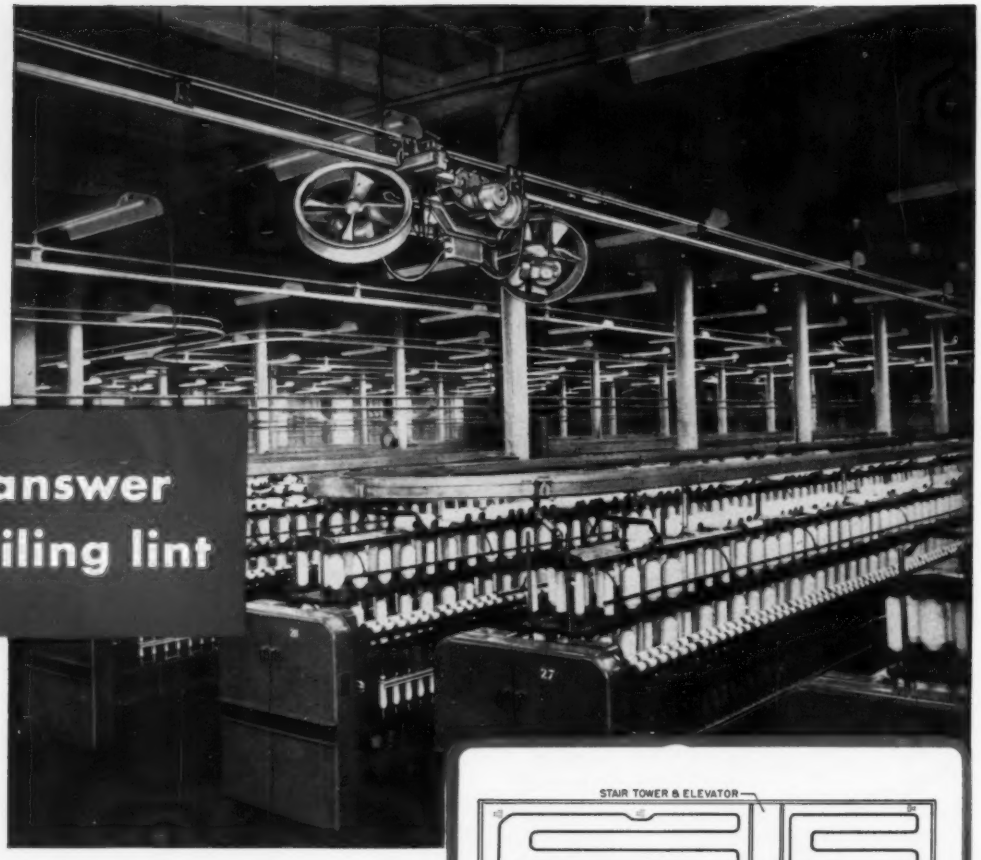
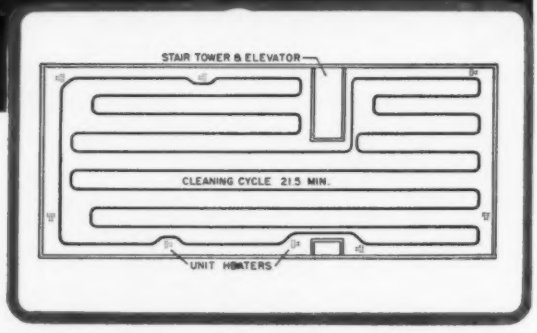


The answer to ceiling lint



Louden's Automatic Twin-Fan ceiling cleaner

More and more mills now keep their ceilings *continuously* clean and free of lint—by installing the Louden Twin-Fan Cleaner that cleans without disturbance to any processes going on in the machines below it.

The installation pictured above is typical. This is a spinning room in a well-known southern mill. The room is "blanketed" by 2800 feet of Louden track over which the Louden twin-fan—hence, *two directional*—ceiling cleaner travels continuously, making the trip once every 22 minutes.

The twin fans sweep on *both* sides of the track at once. Independently adjustable, each fan can be pointed in any direction, to suit the special needs of your room. They clean both sides of ceiling beams and other surfaces. The threat of "gout" or "slubs" is done away with, together with manual blowing down, or ladder climbing to adjust stationary fans. There are no dead air pockets, humidity is even throughout. You can have features such as automatic shut off and turn on for passage through areas where fan blowing is not wanted.

You can be sure of highest dependability, efficiency and economy because this is a product of Louden's long experience in designing and building overhead track and overhead equipment of every type.

Let a Louden engineering representative tell you what you need, and how much it will cost, what it will save. Write now, before you forget.

THE LOUDEN MACHINERY COMPANY

6210 Court St., Fairfield, Iowa

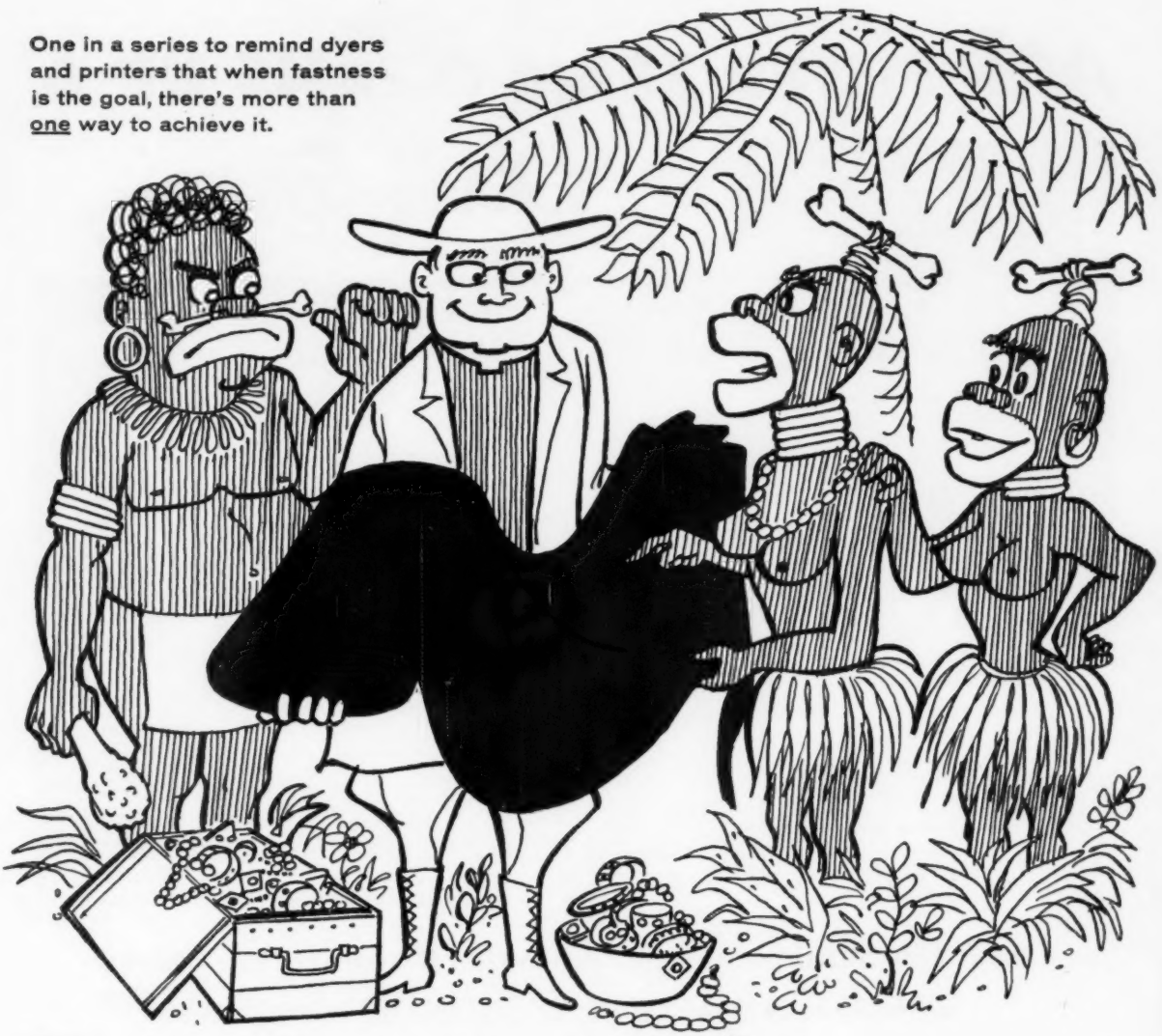
A Subsidiary of Mechanical Handling Systems, Inc.

Louden

MONORAIL & CRANES

Since 1867—the first name in materials handling

One in a series to remind dyers and printers that when fastness is the goal, there's more than one way to achieve it.



"But, is the color fast?"

Nothing interests the lady more when it comes to fabric color. Make it fast and you make her happy...the class of dyes is up to you!

Here it's Azoene® Fast Violet B Salt or Base, coupled with Naphthol AS; the result, as bright, true and fast a violet as you could want! Fast Color Salts and Bases are often your *best* solution to a dyeing problem...one that strikes the ideal balance of economy, production efficiency and consumer satisfaction. Fast Colors may help you *lower costs* or *increase efficiency* while maintaining consumer fastness standards...or they may help you upgrade your line at relatively low cost.

Talk over your requirements with one of our representatives. Your next dyeing job may be better for it.

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BLACKMAN-UHLER CO., SPARTANBURG, S. C.

ALLIANCE COLOR & CHEMICAL CO., NEWARK, N. J.

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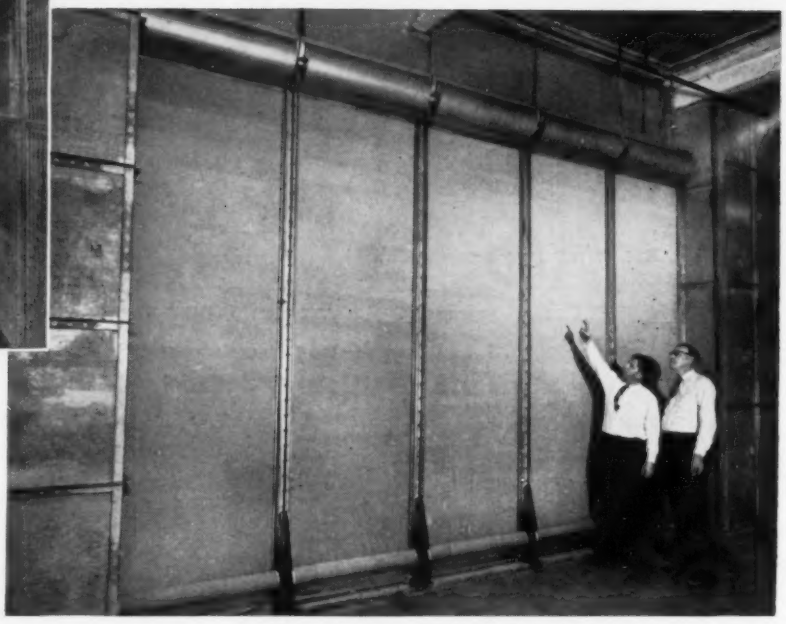
STOCKS AT: CHATTANOOGA, TENN., GREENSBORO, N. C., CHARLOTTE, N. C., COLUMBUS, GA., PROVIDENCE, R. I.

AAF FILTER TEAM CLEANS UP A *Dirty Story*



ABOVE: Final cleaning operations are handled by AAF ELECTRO-MATIC electronic precipitators, thus assuring the spinning room of *super-clean* air.

RIGHT: The front line against impurities in 86,000 cfm of outdoor and re-circulated air to the spinning room is held down by a bank of AUTO-AIRMAT filters. AUTO-AIRMATs on another system supply 60,000 cfm of clean air to the carding room.

Engineered and designed by J. E. SIRRINE & CO., Greenville, S. C.
Installed by THE BAHNSON COMPANY, Winston-Salem, N. C.

Johnston Manufacturing Eliminates Discoloration Losses with Auto-AIRMAT | *Electro*-MATIC Installation

YARN discoloration from dust and soot was costing Johnston Manufacturing Company, Charlotte, N. C., thousands of dollars yearly. Then AAF's No. 1 textile team, consisting of AUTO-AIRMAT and ELECTRO-MATIC filters, took over cleaning both intake and re-circulated air for the spinning room.

Result: during the first year of operation, *not one cent* has been lost due to discoloration.

Here's how these two filters complement each other in producing super-clean air. Lint and coarser dust particles are collected by the AUTO-AIRMAT. Then the ELECTRO-MATIC electronic precipitator adds the finishing touches with the removal of microscopic impurities and smoke. The maintenance story is just as good! Each unit cleans both the air *and itself* automatically!

For complete information call your local AAF representative, or write direct for AUTO-AIRMAT Bulletin No. 234 and ELECTRO-MATIC Bulletin No. 250.

AAF American Air Filter COMPANY, INC.
herman nelson

275 Central Avenue, Louisville 8, Kentucky
American Air Filter of Canada, Ltd., Montreal, P. Q.

VISIT THE AAF EXHIBIT
BOOTHS 463-464
SOUTHERN TEXTILE EXPOSITION
OCT. 1-5
Textile Hall, Greenville, S. C.

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- HOMOGIZING PEARL No. 173
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...make it EASY to IMPROVE textile sizing, printing, finishing...

OK SERVICE—Top flight textile research men working with the finest of modern laboratory facilities develop better textile starches for you . . . carefully control formulae uniformity. A fleet of Hubinger planes bring OK field laboratories and expert textile technicians right to your door . . . and fast.

OK PRODUCTS—A wide range of profit proven products provide an economical means for improved sizing, printing and finishing. SPECIAL OK TEXTILE STARCHES are *tailor-made* to meet your needs.

Let **OK SERVICE** and **OK PRODUCTS** help you save time, improve quality and profit more. Contact the OK representative nearest you . . . you'll find him OK too.

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REINER CREELS—

the most modern in use—have many features. Time-tested and proved in mill operation, they provide for savings in labor—producing better warps at higher speeds. They are readily adaptable to pirns of all sizes and all types of cones or cores.

Reiner magazine or single type creels give unmatched performance for any space or functional requirement. Truck creels for quick doffing are also available.

Reiner offers a full line of warpers and beamers.

All Reiner equipment is readily adaptable for use with units of other make.

From Cone to Knitted Fabric—From Creels to Warpers—From Knitting Machines to Tenter Frames—You Can Depend On Reiners For Superb Workmanship, Low-Cost, Profitable, Efficient, Trouble-Free Production!

REINER PATENTED TENSION CONTROLS for Quality Production

REINER'S PATENTED TRIPLEX TENSION provides for an endless variety of settings of delicate yarns at top speeds. A metal guard protects against ballooning yarn—eliminates breaking or nicking. Four different weights of tension washers meet all possible requirements. All posts are movable and the slots calibrated for easy setting. Alsimag or porcelain eyelets—tension posts available in Alsimag or satin-finish hardened chrome.

Other tension arrangements with single or double posts—tensions with loom type stop motions—tensions for crepe or special yarns—mercury—loom type—mechanical stop motions for any yarn or special requirements.

Write for complete details.

Don't Fail to See The Reiner Exhibit—Booth #121, Southern Textile Exposition.

ROBERT REINER INCORPORATED

10 MINUTES FROM TIMES SQUARE

Take Bus Nos. 61 or 67, from Platform No. 60, Port Authority Bus Terminal, 41st Street and 8th Avenue, New York City. Get off at Pleasant Avenue, Weehawken, New Jersey. From there turn left and walk through the underpass up to Gregory Avenue . . . TELEPHONE: UNION 7-0502, 0503, 0504, and 0505. From New York City call LONGACRE 4-6882.

FOUNDED IN 1903 — 550-564 GREGORY AVENUE, WEEHAWKEN, NEW JERSEY

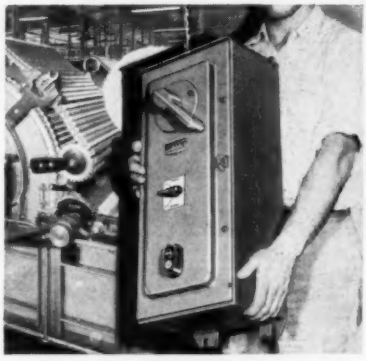
CUTLER-HAMMER THREE-STAR MOTOR CONTROL BRINGS PEAK PERFORMANCE TO COTTON CARDS

Modern carding is done electrically . . . controlled by Cutler-Hammer Three-Star Motor Control. Throughout the textile industry progressive mills are converting their cards from dangerous, cumbersome line shaft drives to modern, efficient individual electrical drives. Gone is the clutter of line shafts, pulleys and belts. No more oil drippings. Maintenance costs have been slashed. Thanks to individual electrical drives, these modern card rooms are cleaner, safer and many times more productive. Consistently mill after mill specified C-H control while modernizing . . . knowing Cutler-Hammer Three-Star Card Control would assure them the dependability, safety and peak performance so vital.

Cutler-Hammer Three-Star Card Control is a complete control unit in a single lint-tight enclosure. Convenient pushbutton-control starts and stops the card in either direction. An externally operated reversing switch selects the direction of rotation . . . forward for carding, reverse for grinding; but for safety-sake the card cannot be reversed while running. The famous C-H eutectic alloy overload relay is your assurance of complete, dependable motor overload protection. Special sensing coils allow the motor to start the high inertia load, but will not permit the motor to operate on a damaging running-overload.

These magnetic, across-the-line starters are available in three types; starters only, fusible combination starters, and circuit breaker combination starters. All feature C-H time-tested vertical contacts which *never* require maintenance with all normal use. The fusible combination starter includes a contactor type disconnect switch with an externally operated handle. The circuit breaker combination starter also includes an external operating handle which can manually trip the breaker. Multiple padlocking of the operating handle in the "off" position guarantees safe card maintenance . . . no unauthorized operation.

For modern cotton card performance, specify Cutler-Hammer Three-Star Card Control. Your authorized Cutler-Hammer Distributor is stocked and ready to serve you with the finest in textile machinery control . . . Cutler-Hammer Control. CUTLER-HAMMER, Inc., 1456 St. Paul Avenue, Milwaukee 1, Wisconsin.



INSTALLS EASIER—WORKS BETTER—LASTS LONGER C-H Three-Star Card Control is perfect for every cotton card. Select either the fusible or circuit breaker type combination card control, or starter only.

CUTLER-HAMMER
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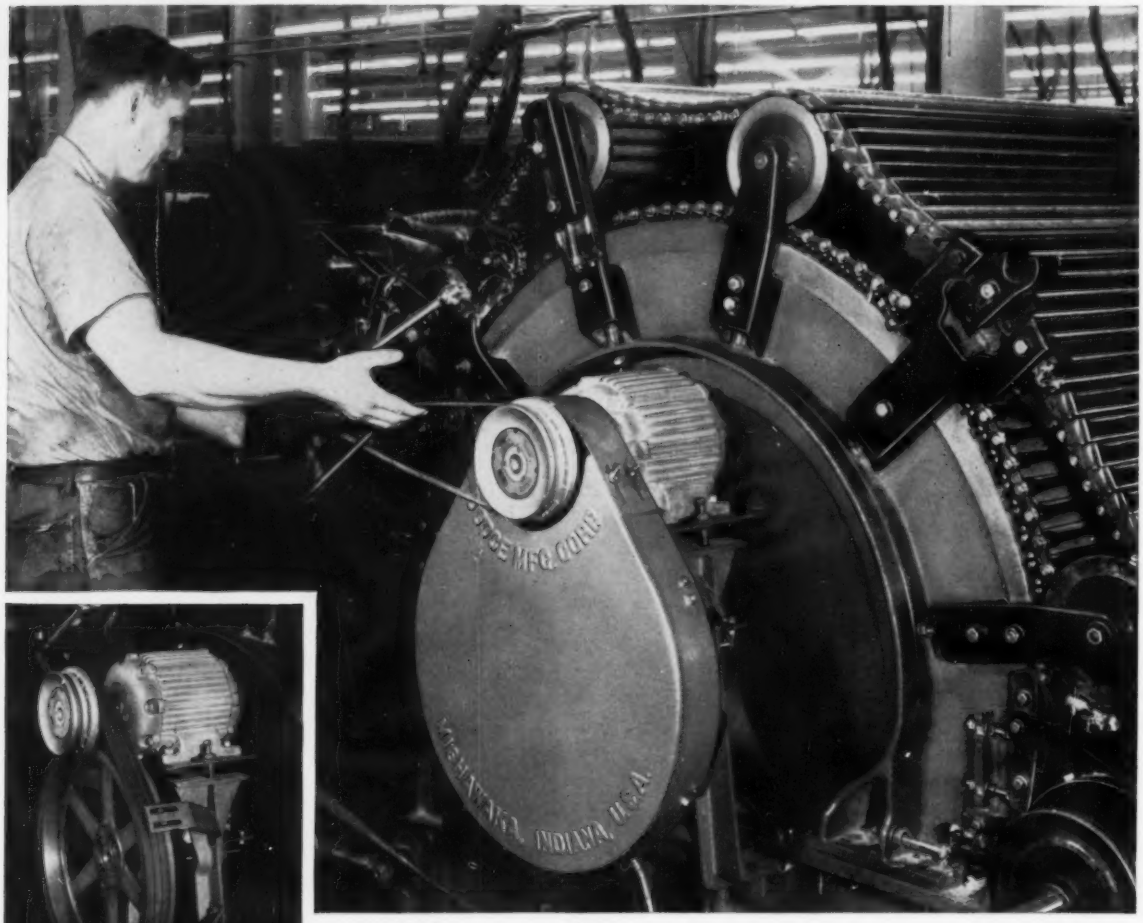
C-H

Visit our booth 429 at the Southern Textile Exposition October 1-5, Greenville, S. C.

See Our Demonstration at the Southern Textile Exposition — Greenville, So. Carolina, October 1-5.



New Drive REVOLUTIONIZES CARD PERFORMANCE . . . STARTS SOFTLY . . . ACCELERATES QUICKLY TO FULL SPEED . . . AVOIDS EXCESSIVE STRAIN

Components of Dodge FLEXIDYNE Card Drive

- **Flexidyne, keyed to motor shaft**
- **Pedestal, supporting motor**
- **V-flat drive**
- **Aluminum stripper pulley**
- **Aluminum guard**

A complete package; ready to install.

Flexidyne, heart of this new complete Card Drive by Dodge, picks up the load smoothly . . . protects machinery and motor against shock and overload . . . delivers 100% efficiency during running cycle. Flexidyne, *the Dry Fluid Drive*, eliminates need for high torque motors and expensive controls, saves power, provides a new and better way to drive textile machines.

Note the special aluminum pulley mounted on Flexidyne housing, enabling quick, convenient operation of stripper. Pedestal has adjustable motor base to control tension on V-belts. You should have the full story of all the advantages of the new Dodge Flexidyne Card Drive. Ask your local Dodge Distributor, or write us, for new illustrated Bulletin A-653.

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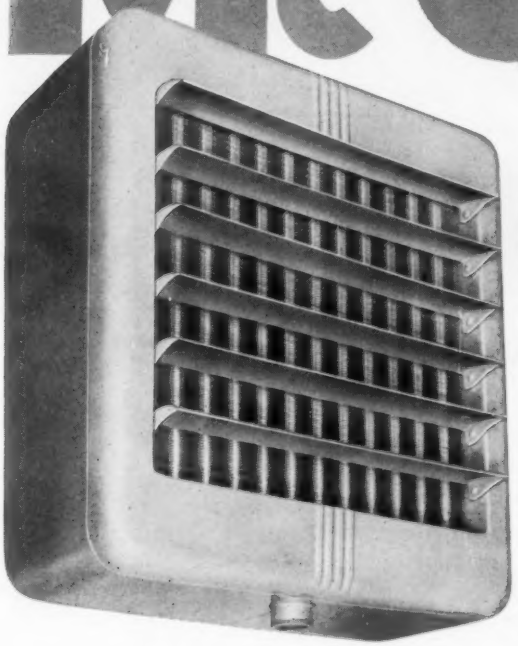
3500 Union Street, Mishawaka, Indiana

CALL THE TRANSMISSIONEER, your local Dodge Distributor. Factory trained by Dodge, he can give you valuable assistance on new, cost-saving methods. Look for his name under "Power Transmission Machinery" in your classified telephone directory, or write us.

DODGE
of Mishawaka, Ind.

For Fast, Safe, Efficient Heat Recovery

McQUAY



Down Flow type with radial diffuser for controlled air distribution.

Attractive Horizontal Model with adjustable louvers.

Wherever large quantities of heat are required, McQuay steam or hot water Unit Heaters answer the need quickly and efficiently. Where internal atmosphere is subject to sudden temperature drop due to door openings, McQuay Unit Heaters provide rapid heat recovery.

With remote heat sources McQuay Unit Heaters can be located anywhere, making them ideal for applications where fumes, dust and other inflammables make open flames a hazard.

Both the horizontal and vertical types have steel cabinets bonderized and finished in baked enamel to provide maximum protection against corrosion. For operation in explosive atmospheres, units can be equipped with explosion proof motors.

71 McQuay representatives to serve you; Consult your classified directory.

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HEATING • AIR CONDITIONING • REFRIGERATION

CLEARFILM

FOR FINISHING RAYONS AND COTTONS

a smooth hand with brilliant color

CLEARFILM is a unique, thin-cooking starch derivative—*developed by National through chemistry*—for finishing rayons and cottons. It is non-congealing. Penetrates quickly at normal room temperature. Forming films that are strong, flexible —*yet smooth and supple to the hand!* Further, films are crystal clear. Prints and colors retain all of their original brilliance.

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CLEARFILM is highly recommended as a crisping agent and extender for use with many thermosetting resin finishes.

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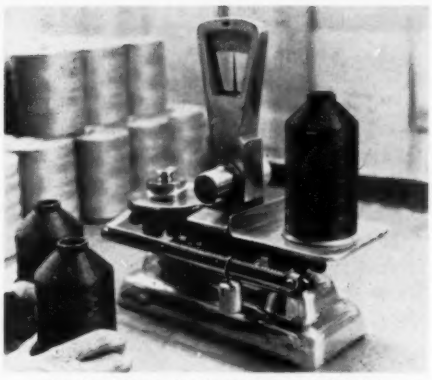
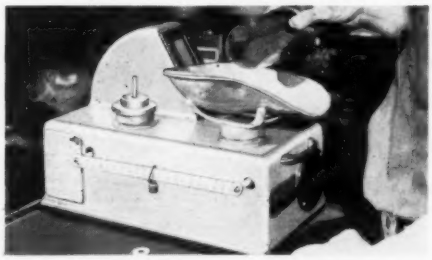
When grains, grams or fractional ounces can affect your quality . . .

Yarn Count with Direct-reading SHADOGRAPH Model 4142
Carlton Yarn Mills, Cherryville, N. C.

Exact Weight® ASSURES CONTROL



Checkweighing with Center Tower Model 103
Threads Incorporated, Gastonia, N. C.



SHADOGRAPH Model 4104 graduated in grains, used in Dyestuffs Control

Wherever precise control is a factor, operators of leading mills rely on accuracy, speed and dependability of EXACT WEIGHT Scales. Precision engineered on a design principle that makes visible weight indication easier, they meet the most rigid control requirements with a fast rate of operation. Reports show them 5 to 6 times faster than ordinary weighing methods.

Specialized models of EXACT WEIGHT Scales are now in use on a wide variety of exacting jobs: Dyestuff Color Control, Micronaire Testing, Yarn Count and Slashing, Roving Can Weight, Sliver Testing, Check-weighing. On each of these operations EXACT WEIGHT Scales provide fast, visible accuracy in maintaining quality standards — and protecting the profit margin.

Inquire how EXACT WEIGHT can assure better control in your operations with scales engineered for your particular needs. Phone your nearest EXACT WEIGHT representative, or write for complete information.

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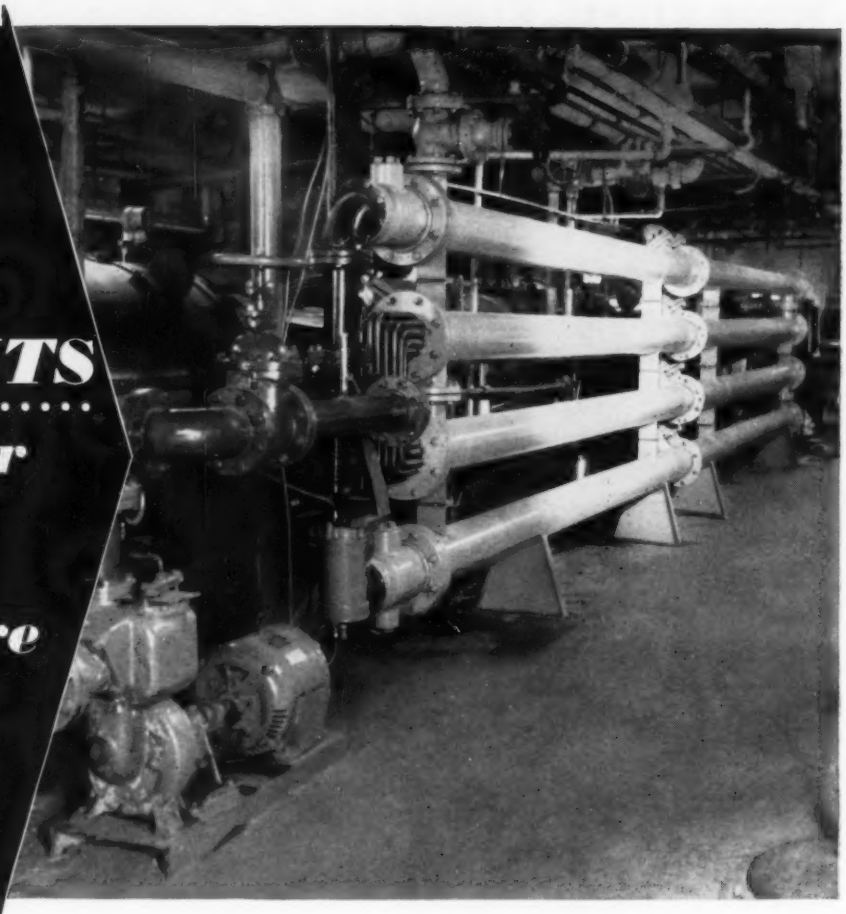
flow PROFITS into your plant from here



With a Bready System of Heat Recovery, heat in process waste water can pay at least one-half of your hot water heating costs and load each year. In 90% of installations, a Bready System PAYS OFF in two years with the value of fuel saved, and *in every case* is the basis for many other operational economies.

Ludell does not guess. The benefits of a Bready System of Heat Recovery are carefully computed by experienced engineers before the installation is made and are fully guaranteed.

Even waste water with temperatures of 90° F or less flowing through a Bready System of Heat Recovery can result in fuel reductions of thousands of dollars a year. The high efficiency of a Bready System will soon repay the cost of discarding an old fashioned "heat exchanger".

Investigate the tremendous advantages of a Bready System of Heat Recovery as it applies to your plant. Write, wire or phone for details, or a free plant survey.

Ludell *Manufacturing Company*

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MANUFACTURERS OF BREADY SYSTEMS OF HEAT RECOVERY, BREADY SYSTEMS OF HOT WATER HEATING AND WHEELER SELF-UNLOADING WASHER

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But . . . how about Card Clothing?

If given a quick, superficial inspection all new Card Clothing looks alike. But the Boss Carder does something more than look. He gives his Card Clothing a careful and thorough inspection. He tests the foundation . . . he checks for uniformity of height and point sharpness.

TUFFER CARD CLOTHING, precision-made by TODAY'S production methods, rigidly inspected and double-checked, meets the full requirements of those who know what they want, and want only the VERY BEST!

TUFFER CARD CLOTHING keeps production progressing profitably . . . next time, TURN TO TUFFER!

C-1

Manufacturers of Card Clothing for 90 years
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ALUMINUM TIP WITH 6-POINT TUBE CLUTCH
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TOTALLY ENCLOSED FINGER BRAKE
STEEL BASE WITH RUST-RESISTANT FINISH
THIS WOOLLEN TYPE SPINDLE EQUIPPED WITH SKF-ROLLER BEARING - RUNNING PERFECTLY IN SEVERAL US MILLS - WILL MEET YOUR REQUI-REMENTS TOO

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19th SOUTHERN TEXTILE EXPOSITION

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OCTOBER 1-5, 1956

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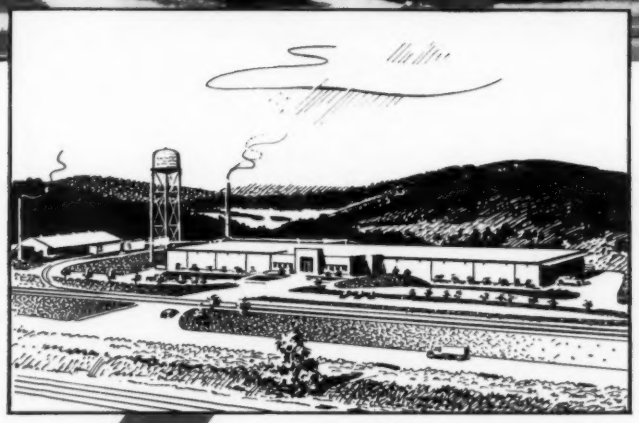
2 Points of Interest When You Visit Southern Textile Show



We extend a cordial invitation for you to visit our Booth, and also our Southern Shuttles Division, which is located only a few minutes from Textile Hall.

This will be an excellent opportunity for you to see how we build fine quality into our products from selected raw material through every manufacturing process.

If you will kindly express your wishes to someone at our booth, one of our representatives will be glad to take you for a tour through our Greenville Plant.

Sincerely,

Harry W. Fehr

Harry W. Fehr,
President

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STEEL HEDDLE MFG. CO.
PHILADELPHIA 32, PA.
SOUTHERN SHUTTLE DIV.
GREENVILLE, S.C.
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- Vinyl Embossing Calenders for Plastic Sheeting
- Seam and Slub Detectors
- Perkins new Electraumatic Seam Detector (for Shearing Machines)
- Cloth Pilers
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New DynAC® stops motors *instantly*...without a ripple!

Here's dramatic proof of the smooth, controlled braking action of the new Westinghouse DYNAC braking controller. Motor stopped *instantly*—without disturbing the water in the glass goblet. "Grabbing" or jerky stops are eliminated with DYNAC braking.

Wherever rapid and/or controlled stopping is required, DYNAC can not only contribute an important safety factor, but it can save you headaches—*and money*—on: (1) production time, (2) material rejects and spoilage, and (3) maintenance expense.

Because it's *completely* electrical, DYNAC requires no mechanical apparatus or motor linkage—it simplifies maintenance. And it comes in *one* compact, spacesaving enclosure. Get the facts on DYNAC's many cost-cutting applications—with every type of standard induction motor. Use the coupon below for more information on DYNAC. J-30200

YOU CAN BE SURE...IF IT'S

Westinghouse

WESTINGHOUSE ELECTRIC CORPORATION
P.O. Box 868, Pittsburgh 30, Pa.

Please send me descriptive bulletins 15-600 and B-6572 on the new DYNAC braking controller.

Name_____

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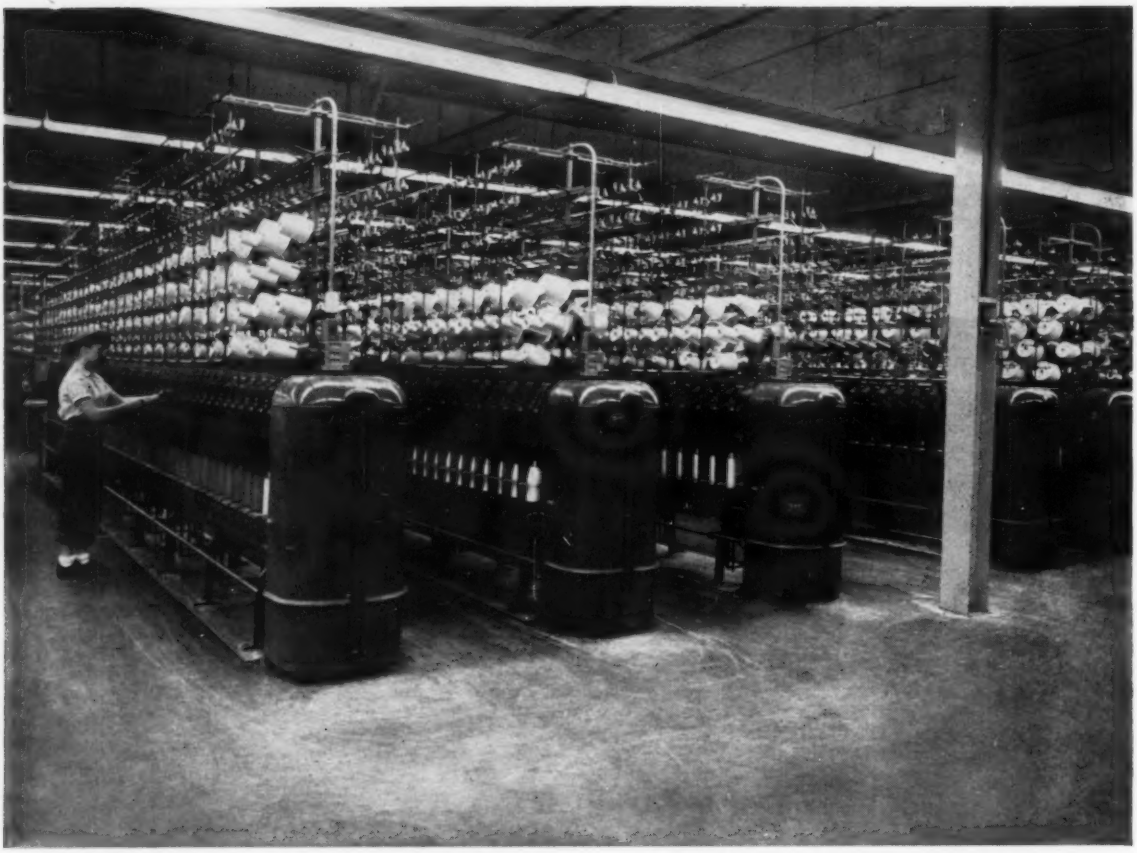

Leesona Model 10 Ring Twisters at the Chatham Manufacturing Company mill in Elkin, N. C. Part of a Leesona 2600-spindle installation used in producing the famous Chatham automotive and apparel fabrics.

Why CHATHAM selected Leesona® Ring Twisters

Mill executive tells how Model 10 machines help maintain quality and cut production costs

Carlyle Summey, Worsted Division Manager at Chatham, says:

"Our fabrics require many combinations of yarns — natural, synthetic and metallic, in ply constructions of from 2 to 6 ends. Leesona Model 10 Ring Twisters do a great job of top-quality twisting for us. Their single and ply end individual stop motions and individual tensioning of each end in the creel make the perfect combination for high efficiency twisting. We get big, well formed take-up packages from our Model 10's — and we get them fast, which saves us time and money in our subsequent coning, quilling and warping operations.

Investigate Leesona Machines

Get *all* the facts. Find out how Model 10 Ring Twisters, or other Leesona Machines, can cut your operating costs and improve your product quality. See your Universal representative or write direct.

23.5.2

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P. O. BOX 1605, PROVIDENCE 1, R. I.

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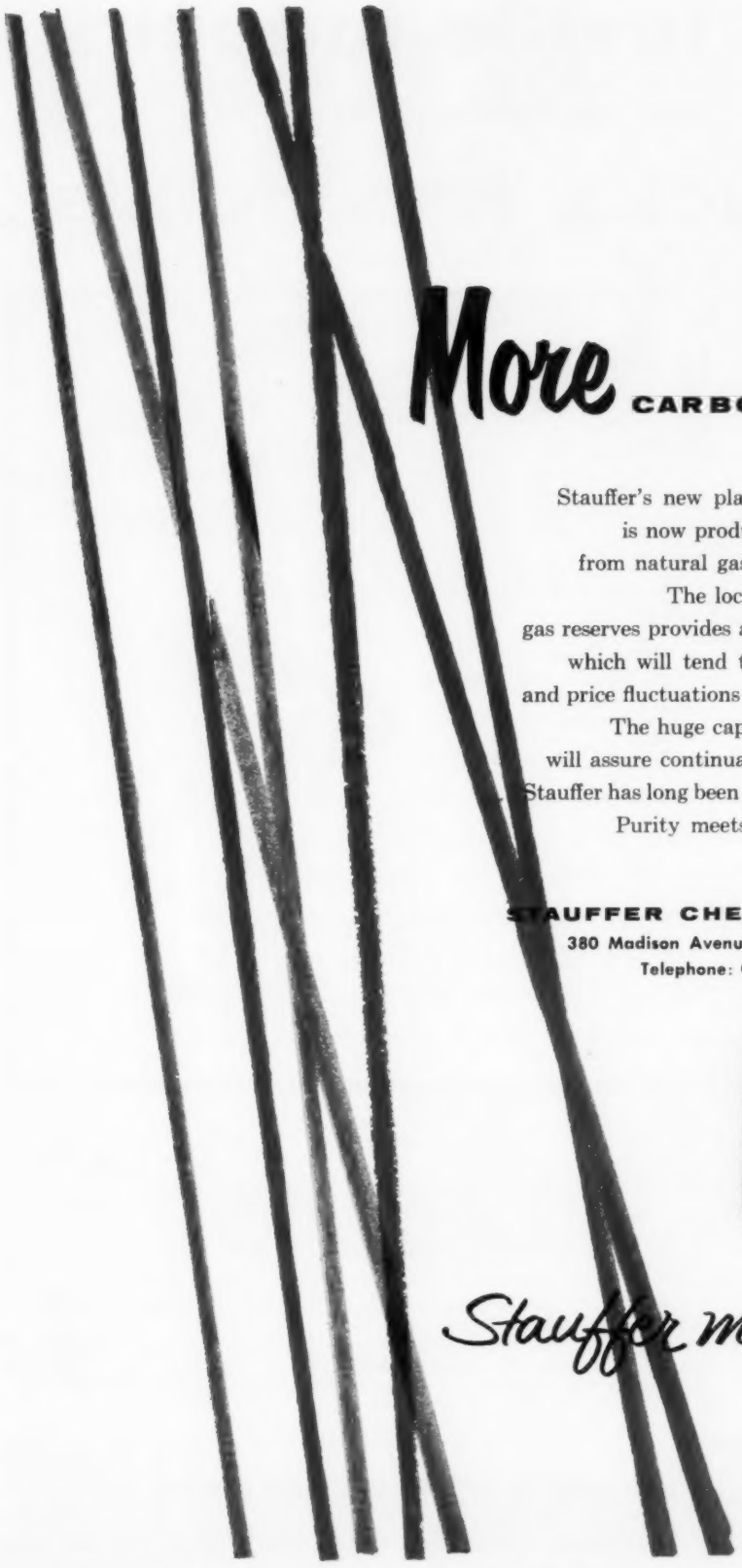
Winding and Twisting Machinery for Natural and Synthetic Yarns



More CARBON BISULFIDE!

Stauffer's new plant at Le Moyne, Alabama, is now producing carbon bisulfide from natural gas and sulfur.

The location in an area of enormous gas reserves provides a supply of raw materials which will tend to eliminate the instability and price fluctuations of the wood charcoal market.

The huge capacity of the new plant will assure continuance of the service for which Stauffer has long been known in the Rayon industry.

Purity meets Stauffer Standards.

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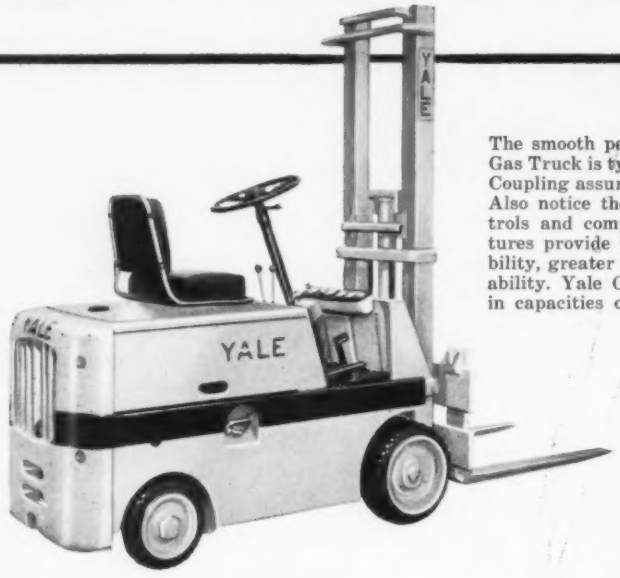
Stauffer CHEMICALS SINCE 1885

Stauffer means service

For the textile industry

a complete line of

Yale trucks and hoists



The smooth performance of this Yale G-52 Gas Truck is typical of all Yale Trucks. Fluid Coupling assures shockfree starts and stops. Also notice the low cowl, grouping of controls and compact design—these Yale features provide the operator with extra visibility, greater handling ease and maneuverability. Yale G-52 Series Gas Trucks come in capacities of 2,000, 3,000 and 4,000 lbs.

Among the many Yale Hoists, the Yale Midget King Electric Hoist is especially popular in the textile industry. That's because this hoist is powerful, portable and works for less than two pennies a day. What's more, the one-hand bar control gives perfect load control, leaves one hand free to guide the load. Yale Midget Kings are available in capacities of ⅛, ¼, ½, 1 and 2 tons.

Yale offers you the world's most complete line of industrial lift trucks and hoists to meet the great variety of handling needs found in the textile industries. Whatever materials or finished products must be moved, Yale makes a truck or hoist with the capacity, power and engineering features best suited for the job. To speed your processing, storage and shipping operations and save as much as 75% on handling costs, you can select Yale Gas Trucks in capacities from 2,000 to 10,000 lbs.... Yale Electric Trucks from 1,500 to 100,000 lbs.... Yale Hand Trucks from 1,000 to 15,000 lbs. And, for utmost efficiency in overhead handling operations, there is a Yale Hand or Electric Hoist for every lifting job in capacities from ⅛ to 40 tons. For full facts, write The Yale & Towne Mfg. Co., Materials Handling Division, Philadelphia 15, Pa., Dept. 4910.

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- Yale Warehouser with Extend-A-Forks
- Yale Model A Lightweight Hand Truck
- Yale Midget King Electric Hoist
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Higher Breaking Strength and Abrasion Resistance

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These new starch ethers give excellent results in textile operations when combined with either urea-formaldehyde or melamine resins. If you are a textile finisher or processor who does not know about the ease and simplicity of using Penford Finishing Gums, Penick & Ford offers the services of their Technical Sales Service Engineers. They will be glad to advise you as to the best Penford Finishing Gum for your finishing requirements and how to best apply it with your finishing equipment.

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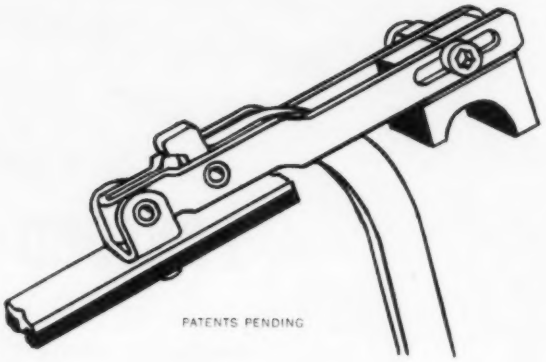
for mills that believe in

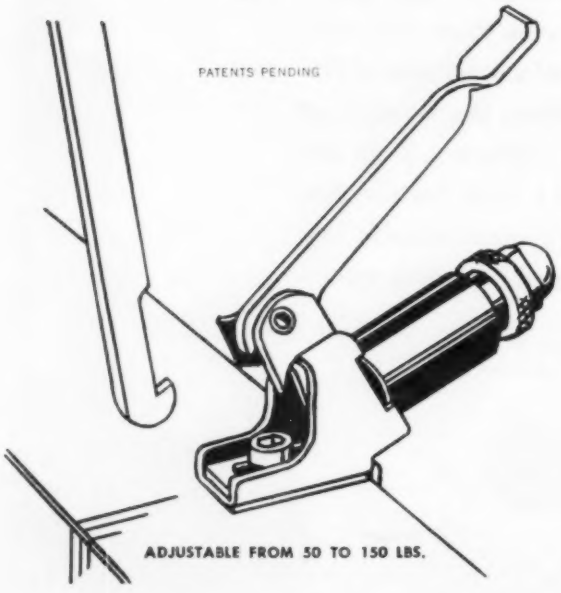
DRY SPINNING and ACCURATE WEIGHTING...

This Saddle is adjustable and greaseless.

A single completely enclosed adjustment controls the location of the pivot between front and middle lines. One saddle is adjusted to produce the best results, then all saddles on the frame are set by gauge exactly the same.

Self-lubricating inserts of generous size for longer life may be inexpensively replaced after excessive wear.





This weighting unit is installed on and above the roller beam, replacing the fulcrum screw, lever, hook and gravity weight.

A single tension nut, which is locked by an acorn jam nut, is adjusted to produce the weight required on the stirrup for best results, then all units on the frame are set the same. The fully enclosed springs are guaranteed not to vary more than 2%.

An added feature is the semi-automatic stirrup latch. One second is required to release the stirrup, two seconds to re-engage it.

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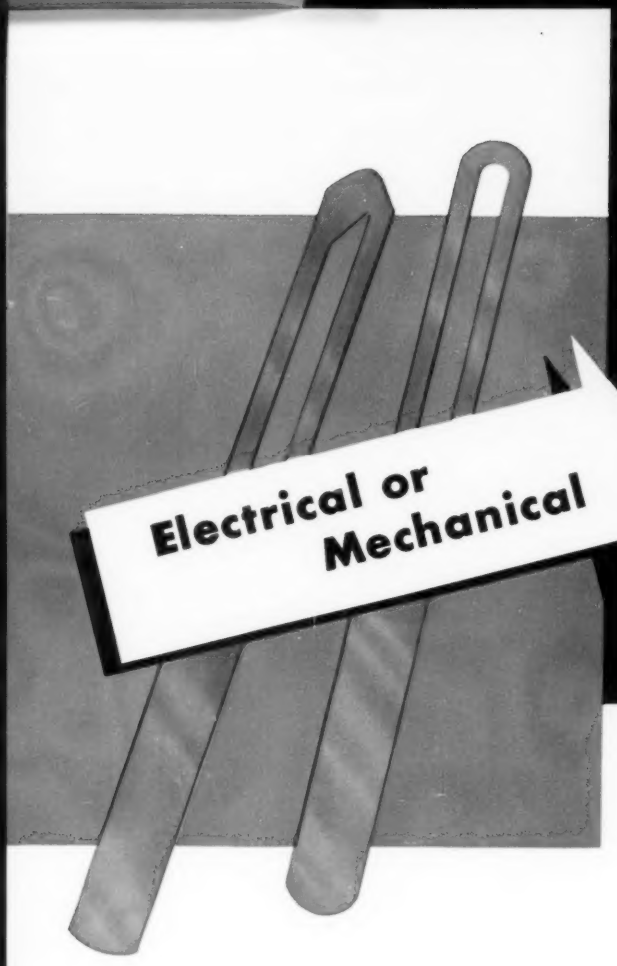

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See our comprehensive display of Drop Wires and Warp Stop motion parts at the forthcoming Southern Textile Exposition. Booths #134 — #135 — #136.

Long experience in satisfying the most exacting demands of delicate weaving enables Draper Corporation to produce Drop Wires of unexcelled finish. K-A Drop Wires are available in a wide variety of styles and weights, ranging from 5 grains to over 150 grains in weight and from .004″ to .045″ in thickness.

Drop Wires of carbon steel with copper or galvanized finish, or stainless steel Drop Wires can be furnished upon request.

For Drop Wires that offer you maximum service and protection, specify . . . Draper K-A.

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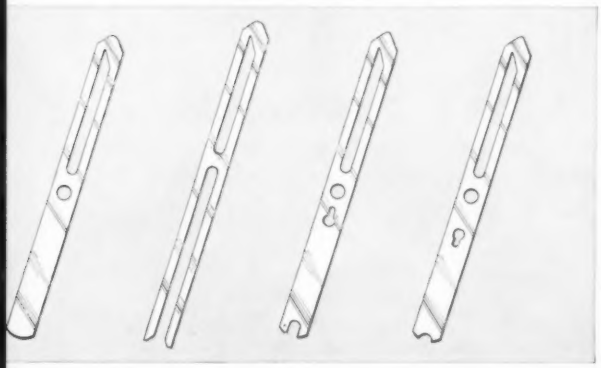
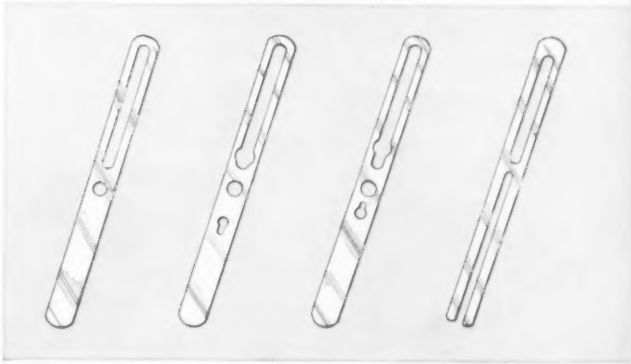


MECHANICAL



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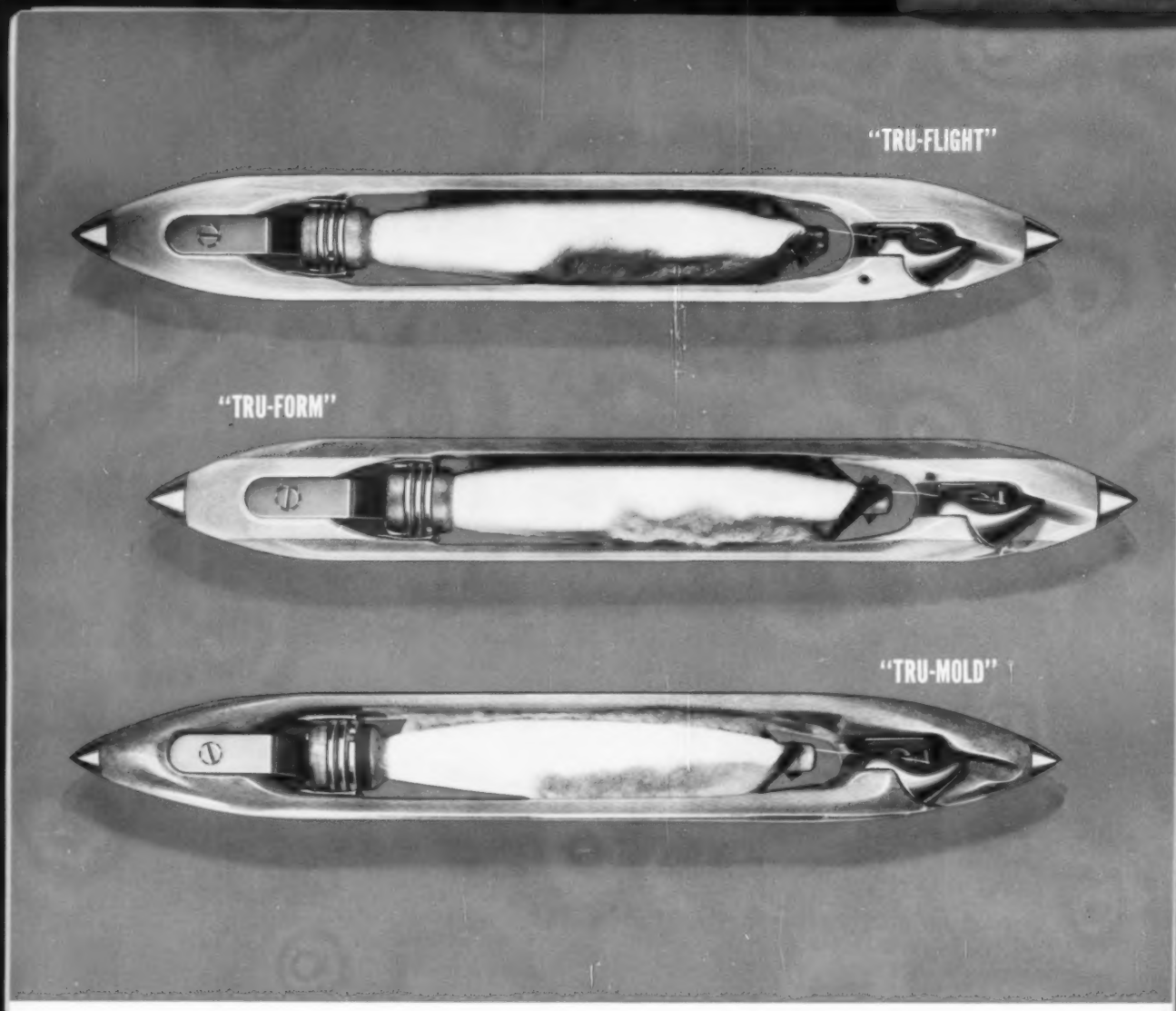
K-A Electrical Warp Stop Division, Pawtucket, Rhode Island



REDUCE WEAVING COSTS WITH DRAPER SHUTTLES

Longer shuttle life and *reduced maintenance* are two distinct ways in which Draper shuttles aid in lowering weave room costs. The desire to furnish a shuttle that will meet exactly the conditions under which the mill plans to use it has resulted in the manufacture of a wide variety of Draper shuttles.

"TRU-FLIGHT", "TRU-FORM", and "TRU-MOLD" shuttles incorporate the finest in materials and design. From all-dogwood to the completely new molded construction, each is engineered to offer *greater shuttle economy* and *improved loom operation.*

Lower *your* weaving costs . . . standardize on Draper shuttles, today.

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Textile Industries
for October, 1956

News in Brief

Stretch and Bulk Yarn Markets Growing. Today's market for stretch yarns has been estimated at between 15 and 20 million pounds annually, the August issue of *Textile Organon* stated. The market continues to grow in items where variable size, fabric texture, and hand are important. Reporting on bulk yarns, the publication pointed out that their use in the United States has been less spectacular than that of stretch yarns, but it is considered that the eventual market open to bulk yarns is much larger.

What Labor Wants. What organized labor wants in the near future was summarized recently by *Newsweek*, which quoted Samuel Gompers' laconic answer, "More." Sample goals which labor will try to achieve: a Federal minimum wage of $1.25 (compared to the

present $1.00); no change in Federal maximum of 40 hours per week, but Auto Workers' Reuther aims at 40 hours' pay for 32 hours' work by 1958; employee contributions to pension funds to be made tax deductible; to present a solid union front by consolidation of rival unions in the same field; to enroll the 32 million employees who are not now union members, and which labor considers organizable—these are mostly in the South, where, for example, 700,000 textile workers remain unorganized.

Mills Sponsor Import Ads. A group of North Carolina mills recently placed full-page advertisements in the Charlotte, N. C., newspapers to "talk facts about textile imports." Material for the ads was taken from a booklet published in July by the American Cotton Manufacturers Institute.

Black Sheep Out. University of Wyoming's wool department recommends that sheep raisers stop using black sheep as markers in their herds. Black fibers in white wool fabrics have been traced to

black sheep, who transferred some of their black fibers to the white sheep by rubbing against them.

Electronic Size Changing System for F-F. An electronic method for making size changes on full-fashioned hosiery machines has been developed by Charles R. Fegley of Laureldale, Pa., and will soon be available commercially. Mr. Fegley's device employs photoelectric circuits, operated by a punched tape, in place of the usual chain and buttons or trip device. The electronic device is claimed to make size changes possible in a few seconds, merely by replacing a control card, compared to the usual 10 to 30 minutes required with conventional methods.

Screen for U-V. Application to plate glass of a colorless, crystal-clear plastic with "indefinite" longevity is claimed by Solar-Screen Corp. to provide a complete barrier to ultraviolet radiation, preventing damage to fibers, fabrics, and dyes.

Textile Credit Unions Spread. Employees in the textile industry now operate more than 200 credit

unions, according to the Credit Union National Association. Latest to join the Association are the employees of Bates Manufacturing Co., where about 1,650 employees are eligible for membership.

Employee Use of T-H Rises. During the first quarter of 1956, 2,211 election petitions were filed with the National Labor Relations Board under the Taft-Hartley Act, an increase of 26 per cent over the last quarter of 1955. AFL-CIO unions filed 1,814 of the petitions, apparently reflecting increased organizational activity. At the same time, unfair labor practice charges filed against unions totaled 381, of which 60 per cent were filed by employees, 7 per cent by other unions, and 33 per cent by employers.

Equipping the Textile Employee. Average capital investment per production employee in the textile industry was $7,131 in 1952, ac-

cording to figures released by the Council for Technological Advancement. The average for all manufacturing industries was $11,980 (estimated to be $12,500 in 1956). Petroleum had the highest

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per-worker investment ($76,358), and apparel and fabric products the lowest ($3,601). Almost 40 per cent of all capital invested in manufacturing in the United States is accounted for by the metal products and processes industry, which has $11,121 invested per employee.

Hosiery Sales Down. The National Association of Hosiery Manufacturers reports that sales of hosiery of all types amounted to 72.7 million dozen pairs in the first half of 1956, 2.3 million dozen pairs less than in the same period of 1955. Over 80 per cent of the decrease was in the men's socks classification, with women's full-length hosiery off only 0.8 per cent.

Textile School for Turkey. The Turkish government and private industry are planning a textile college, probably to be located in the textile center of Izmir, according to Dean Malcolm E. Campbell of N. C. State College School of Textiles, who recently returned from a month's visit to Turkey.

Four-Way Knot Tier. A warp tying machine recently introduced by a West German manufacturer is claimed to be capable of tying 400 knots per minute. Knots can be tied four ways: lease to lease, lease to sheet, sheet to sheet, and sheet to lease. Yarns from 20-denier nylon to 20/2 linen have been handled with the machine.

Wool Research to Expand. A sharp increase in the wool industry's research programs is announced by The Wool Bureau. Included in the expansion are a two-year project at the Textile Research Institute to study the basic properties of the wool fiber and their influence on mill processing efficiency, and an investigation of the performance properties of lightweight wool fabrics to be conducted by Fabric Research Laboratories, Inc.

Import Quota for Extra Long Staple. Extra long staple cotton has been put under the long staple quota, and the opening date for the quota changed from February 1 to August 1 by presidential proclamation. Quota for the current year is about 95,000 bales of cottons of 1⅛" staple or longer. Since exports of extra long staple average about 15,000 bales annually, the new quota in effect limits imports of long staple to about 80,000 bales a year. Opening date was changed to prevent entire quota being filled by long staple imports, since extra

Voices of Division Would Destroy Us

*by J. Craig Smith**
President
Avondale Mills

Mr. Smith

When we have solved our import problem, it will be the direct result of the combined efforts of the cotton grower, the cotton spinner, the garment manufacturer, and other related groups, North and South, working together. I use the word "when" advisedly, because I am convinced that the problem is going to be satisfactorily solved. Forty-three votes in the United States Senate favorable to our industry are not going to be brushed off.

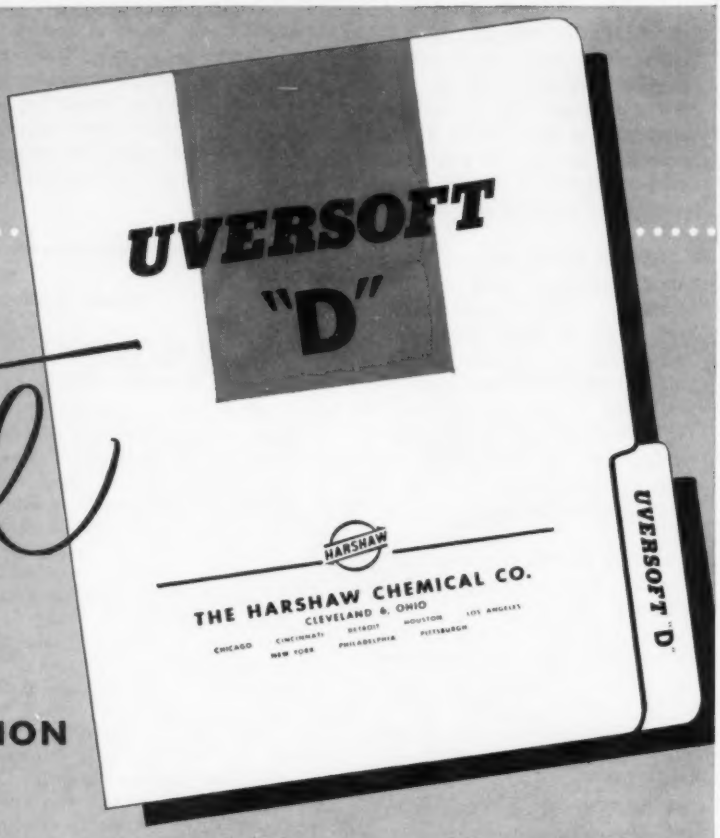
I am no new convert to the belief that those who grow cotton and those who process cotton have a community of interests. In my report as the outgoing president of the American Cotton Manufacturers Institute, I said:

"My major objective for the past year has been to cement further the fine relationship which exists between those who grow cotton and those who spin cotton. . . . More and more the cotton producer leadership has come to realize that the United States textile industry is its biggest and best customer. The cotton producer has taken up the cudgels in our behalf at many different times and places during the past year. The leadership of the cotton textile industry also now knows that there can be no sound prosperity in this country unless the farmer is prosperous, and that on all basic and fundamental issues the interests of the cotton farmer and the cotton spinner are the same. The National Cotton Council is an organization through which all those interested in cotton can work together for their common objectives. I recommend the Council to you unreservedly."

Happily, the textile industry is represented on a full-time basis by a man who not only fully shares the above views, but who more than any other one individual has brought about the united front which the cotton industry has presented. I refer to Robert C. Jackson, who has a legion of friends and admirers across the cotton belt. No man has ever worked harder and more intelligently in the service of any industry than has Bob Jackson. No person I know of is more dedicated than he to the cause that he serves.

It is indeed ironic that with the cotton industry on the verge of solving its major problem by working together, there are those who peddle the doctrine of division. There are those who are telling us that the cotton farmer and the cotton spinner are economic enemies. Others are trying to make it appear that the New England mills are trying to solve their import problem by getting the Japanese to shift to goods made by southern mills. Still others try to create a conflict of interests between those who make garments and those who make cloth. Each and every person who advocates any division of any kind in our ranks is doing us a grave disservice and should be told so.

*Reprinted from the August 13, 1956, issue of *The Avondale Sun*, Sylacauga, Ala.



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UVERSOFT "D" is a cationic surface active agent which produces a full, soft hand with little, if any, reduction in moisture absorbency of the TREATED material. It can be exhausted from a long bath, and has an excellent retention in an aqueous system. UVERSOFT "D" provides a maximum economy in application and use.

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The Harshaw Chemical Company

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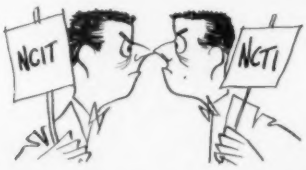
Basic Data on the Textile Industry, 1952-1956

	1955	1954	1953	1952
Average annual earnings, full-time employee (dollars)	3,157	2,995	3,026	2,987
Persons engaged in production (thousands)	1,088	1,079	1,192	1,199
Corporate sales (millions of dollars)	—	—	12,540	13,070
Corporate income before taxes (millions of dollars)	—	—	533	526
Corporate income after taxes (millions of dollars)	—	—	208	182

Source: *Survey of Current Business*, U.S. Department of Commerce

long staple is usually imported in late summer and early fall.

Industrial Group Changes Name. Industrial Textiles Council, Inc., is the new name of the recently formed National Council of Indus-



trial Textiles, Inc. [see TEXTILE INDUSTRIES for September, 1956, p. 75]. The name change was made at the request of the National Council of Textile Industries, to avoid any possible confusion in the trade because of similarity in names.

Cotton Goods Production Up. Cotton broad woven fabric production in the first quarter of 1956 was 2.7 billion linear yards, 4 per cent above the fourth quarter 1955 output, and 5 per cent higher than the first quarter 1955 level. Increases over the fourth quarter of last year ranged from 1 per cent for colored yarn fabrics to 18 per cent for napped fabrics, blankets, and blanketing. Production of print cloth yarn fabrics, which account for more than a third of total broad woven goods production, increased 2 per cent over figures for the fourth quarter 1955.

FTC Halts Towel Fraud. A new York State firm which advertised nationally offering "new towels" for sale at 12 for a dollar has had the whistle blown on it by the Federal Trade Commission, after numerous complaints were received by the National Better Business Bureau. According to NBBB, the towels were actually nonwoven cotton and rayon, wholly unlike conventional towels, with the appearance and feel of paper. Owner of the firm has signed a stipulation with FTC, agreeing to reveal what type of towel is actually offered in his ads, and to stop using the word "Mills" in his trade name.

"Jet Looms" for Czechs. A weaving mill to be equipped with "jet looms" is being erected in the Czechoslovakian town of Semily, according to a European correspondent. The mill is to have 100 of the looms by the end of this year, with another 100 to be installed next year. It is claimed that about 2000 of the jet looms will be set up in Czechoslovakia during the course of the current five-year plan.

Clothing Best Consumer Buy. The consumer gets his best buy when he spends his money on clothing, reports The Conference Board. In analyzing the purchas-

ing power of the dollar for the period 1945-1956, the Board finds that in March, 1956, the average purchasing power for all items was 69.4, food was 65.1, housing 76.6, transportation and sundries 65.9, but clothing was highest at 89.0.

Packaging - Materials Handling Course. A comprehensive technical short course in protective packaging and materials handling will be given concurrently with the Protective Packaging and Materials Handling Exposition and Competition at Kiel Auditorium, St. Louis, October 22-25, under the direction of St. Louis University. Coordinator of the course is Stephen W. Vasquez, dean of the School of Commerce and Finance at the University.

News in Brief

Cotton Back on Top in Autos? The National Cotton Council claims that Orlon, nylon, and rayon have failed to make the grade in convertible tops, and that the trend is

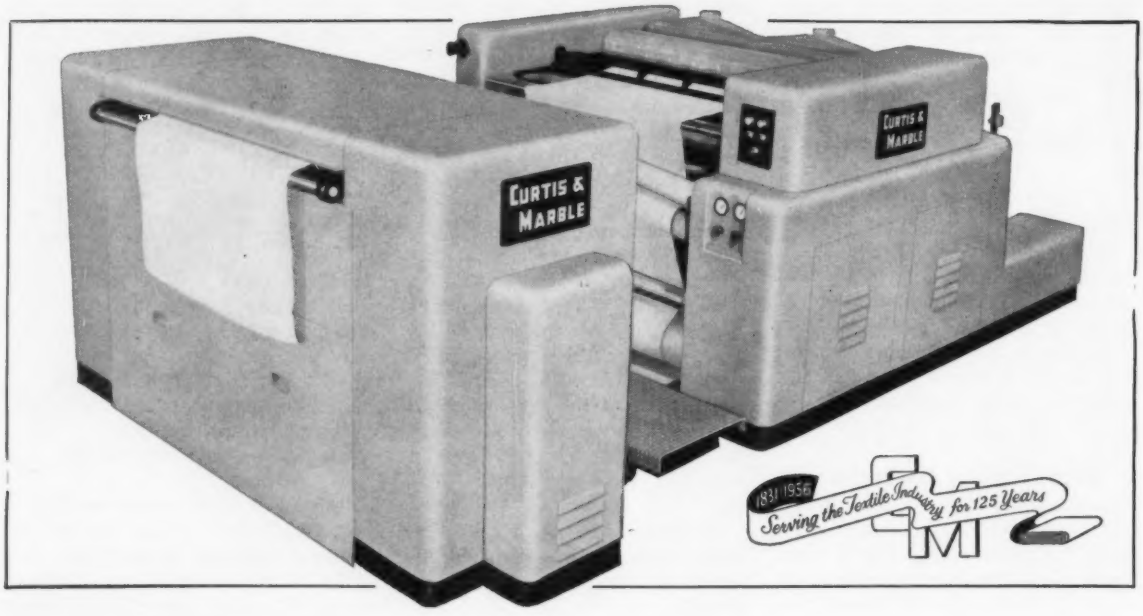
back to vinyl coated cotton. In 1955 combined usage of synthetics dropped to five per cent of the fabrics used in new cars, and synthetics had never captured a foothold in replacement tops, publicity and promotional implications notwithstanding, says the Council.

More and More Nonwoven Fabrics Used. The Textile Economics Bureau reported recently that in 1953 output of nonwoven textiles was estimated at 25 million pounds, but by 1955 the industry's consumption of nonwoven textiles was estimated at between 50 and 75 million pounds. Furthermore, a substantial growth over the next several years is foreseen. Among the more important end uses of them are apparel interlinings, filtration fabrics, fabric for support of laminates, and vinyl sheeting reinforcement for use in the automobile trade.

Magnetic Drive in Prototype Stage. Manufacturing rights to a magnetic drive for fractional- to 50-hp motors, which has been used successfully for some time in Canada, have been purchased by an American firm, which now has

CLEAN OUT THIS **TRASH** GANG!

with the NEW C&M COTTON CLOTH FINISHING RANGE



Here's the range you'll want to clean out the "TRASH GANG" and finish your greige goods clean as a whistle! It's the new M-125 Range and it's fast . . . easy to run. . . . Its design offers you tops in cloth production efficiency with no sacrifice to the end result of quality brushing and shearing. Its engineering assures lowest operational cost and maintenance. Fully automatic, the M-125 Range features easy-access panel covers . . . stands only 54" high for better operator visibility.

The M-125 Brusher includes up to eight interchangeable cylinders paired as desired and quick-set rest adjustments. The M-125 Shear includes automatic seam and cloth protectors, oscillating revolvers with instantaneous reversing of the rotation and individual built-in motors, synchronized draft rolls, dual controls and adjustable batch stop pneumatically driven rolling head.

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CURTIS & MARBLE MACHINE CO. *Textile Machinery*

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prototypes of the drive in operation in this country. The drive consists of a magnetic rotor, using Alnico V permanent magnets, and a bimetallic rotor, mounted face-to-face with an air space between them. If either of the rotors is driven, a torque is induced in the other through eddy currents, with the magnets supplying the necessary magnetic flux. The rotors are never in contact. Whitney Chain Co. is to manufacture the drives in the United States, under license from Tormag Transmissions, Ltd., of Vancouver, B. C.

Wool Mills Move South. The movement of woolen and worsted mills to the southeastern states, and the decline in machinery in place in the New England and Middle Atlantic states is pointed up in figures recently released by the U. S. Department of Commerce (see accompanying table). The total reduction in spindles between 1949 and 1955 was 43 per cent, but equipment in New England mills was reduced by more than half.

Wool Spindles and Combs in Place (thousands)

Location	1949 No.	1949 %	1955 No.	1955 %
New England	2,017	62	857	49
Mid-Atlantic	754	23	337	19
South	262	8	403	23
Other	229	7	170	10
Total	**3,260**	**100**	**1,768**	**100**
Woolen spindles	1,424	44	818	46
Carpet	160	5	131	7
Worsted spindles	1,837	56	950	54
Worsted combs	2.7	—	2.1	—

Carolinas Group Withdraws from ASQC. After three years association with the American Society for Quality Control [see TEXTILE INDUSTRIES for June, 1953, p. 125], the Carolinas Section has withdrawn from the parent body and reverted to its former organization as the Textile Quality Control Association. President of the Association is Ashley Roberts of China Grove (N. C.) Cotton Mills Co.

To Analyze Textile Systems and Procedures. At the annual meeting of the Systems and Procedures Association of America, to be held at the Bellevue-Stratford Hotel, Philadelphia, October 22-24, a textile program will dwell on systems and procedures in the textile industry, with emphasis on integrated data

MERCHANDISING NOTES

American Bamboo Corp. is weaving fabrics of wood combined with cotton, rayon, and metallic yarns, on looms imported from Europe.

U. S. Rubber Co.'s three-dimensional fabric, made by shrinking the polyethylene yarns in a polyethylene-conventional fiber fabric [see TEXTILE INDUSTRIES for February, 1956, pp. 150-151], is used as the interior decoration in the new Sikorsky S-58 helicopters recently placed in commercial service by New York Airways, Inc.

Arwa, West German knitting firm, recently introduced a stocking with the seam at the side, claimed to make it less likely to slip.

Boepple Sportswear Mills, Inc., has introduced a boucle sweater of 68 per cent Orlon and 32 per cent Ban-Lon textured nylon yarn.

Chemstrand Corp. is experimenting with a nylon tie for cotton bales, claimed to be stronger than steel for equal weight. Kink remaining to be solved is a method of fastening the tie so that it will not slip.

Darlene Knitwear, Inc., has in its line a full-fashioned sweater of 85 per cent Orlon, 13 per cent fur fibers, and 2 per cent mink.

Denim Council recently crowned a New England family of four as

the "Workingest Family of 1956," and gave them a week in New York as part of National Denim Week.

Du Pont Co. reports that consumers are showing interest in winter weight wash and wear slacks constructions.

Fabrex Corp. has introduced a range of yarn dyed stylings in 65 per cent Dacron, 35 per cent Pima cotton, for resort and spring fashions.

Geigy Dyestuffs have available a 26-minute sound film on Mitin mothproofing, for showing to organized groups. The film, "Insects Astray," deals with the lives and appetites of clothes moths, carpet beetles, and other wool-eating pests.

James Lees & Sons Co. is basing a promotion of its commercial carpeting on the Carpet Institute's finding that carpeted floors are less expensive to maintain than non-carpeted areas.

National Cotton Council reports that next year's National Cotton Week will be observed May 14-19.

Pacific Mills are producing a 55-45 Dacron-worsted fabric weighing only 5½ to 6 ounces per yard, claimed to be the lightest blend of this type ever manufactured.

Pavillon Fabrics, Ltd., is offering a high style lightweight fabric of 65 per cent Dacron, 35 per cent flax.

Riegel Textile Corp. is promoting a line of wash and wear slacks and sportswear fabrics of 70 per cent Acrilan and 30 per cent rayon, called "Acri-Weave."

Vassar Co. is producing a girdle made entirely of Ban-Lon textured nylon, except for paneling of rayon satin elastic.

You are invited to visit Booth 138 at the 19th Southern Textile Exposition to inspect the new

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builders of:

Dyeing and Finishing Machinery

Dryers

Slashers

Slasher Room Equipment

Special Machines

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SPECIALISTS IN STAINLESS STEEL FABRICATION

processing and electronic data processing. Principal speaker will be James R. Perrin, systems and procedures manager for Cone Mills Corp. Included will be a panel discussion by experts in the field, in which the audience will be asked to participate. Details concerning the meeting may be obtained from J. A. MacQueen, Alan Wood Steel Co., Conshohocken, Pa.

Review of Tariff Schedules. The Tariff Commission has been given an extension until March 1, 1958, as the deadline for submission of a review of the customs tariff schedules authorized by the Customs Simplification Act of 1954. Interested parties are invited to submit suggestions for the consideration of the Commission in preparing its report on tariff simplification. Address the General Counsel, United States Tariff Commission, Washington 25, D. C.

Italian Open-Shed Jacquard. A double-lift, open-shed Jacquard has been introduced in Italy, with production claimed to be 20 per cent higher than similar closed-shed machines.

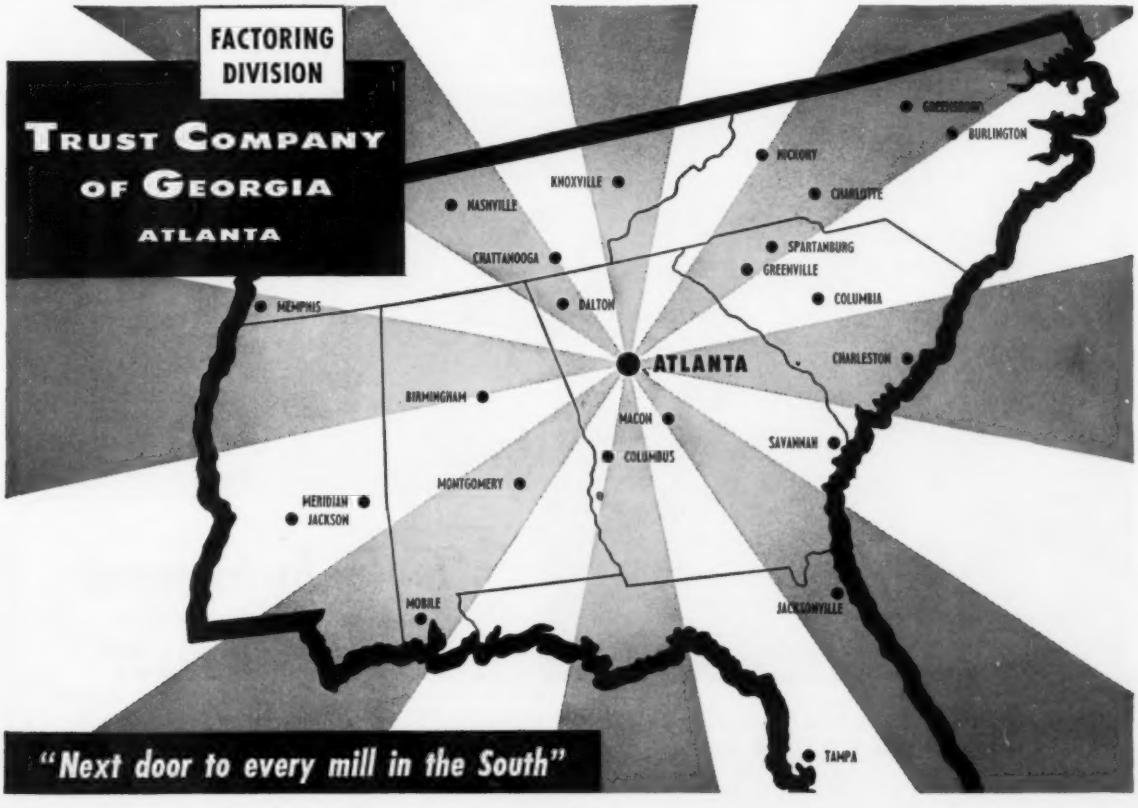
"Young Man of the Year." The New York Board of Trade has appointed a committee to pick a "Young Man of the Year" in the textile industry. David L. Jones of

McKinsey & Co., heads the committee. Candidates must be bebetween 21 and 36 years of age, and be employed in the textile industry or a related industry in the New York area.

Dual Twist Nylon Patented. The first patent (USP 2,751,747) for producing a dual twist nylon yarn has been granted to Patentex, Inc., a subsidiary of Burlington Industries, Inc., and Chadbourn Gotham, Inc. The dual twist monofilament yarn, with alternating lengths of S and Z twist, enables production of seamless stretch stockings on existing machinery. It is claimed to provide the first practical method of producing a seamless stretch stocking from monofilament yarn, and is being used on a production basis by at least one plant.

News in Brief

Rayon Staple Imports Off. 50,967,000 pounds of rayon staple were shipped into the United States during the first six months of this year, according to information recently received from the Textile Economics Bureau. This total was 46% less than the 94,636,000 pounds imported in the comparable period last year. The six-month total of noncellulosic staple imports was 192,000 pounds, 35% more than staple sent in during the corresponding 1955 period.



Which is Your Problem?

YOU'LL FIND THE ANSWER AT THE SOUTHERN TEXTILE SHOW

High Speed Slasher Control System

▼ ▼ ▼

PH Control

▼ ▼ ▼

Dye Padder Control

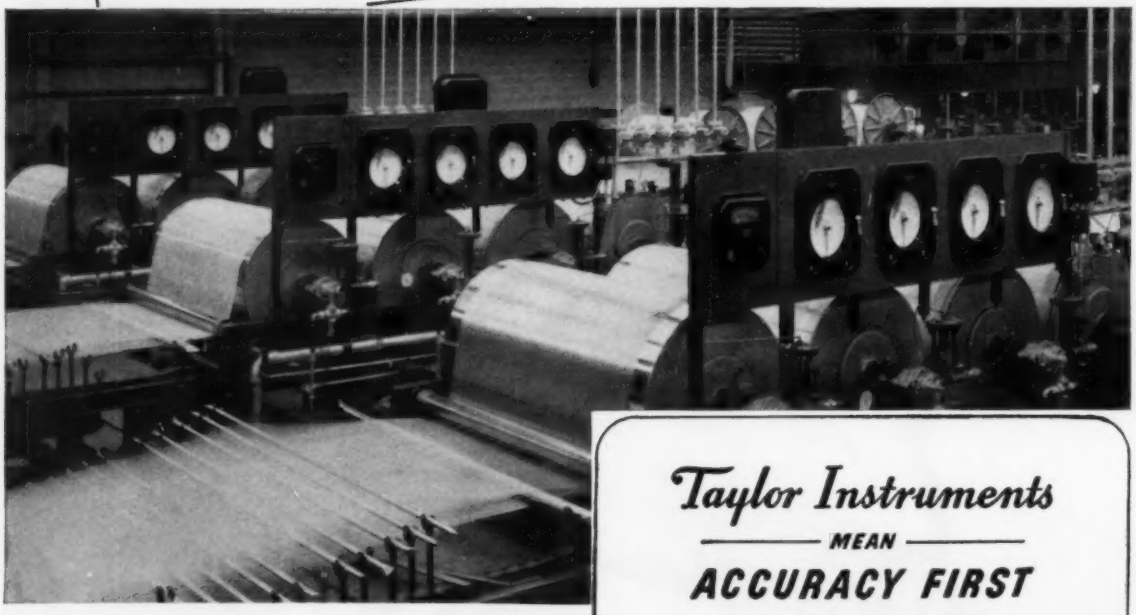
▼ ▼ ▼

BOOTH No. 428

THESE control systems will be demonstrated by animation at the Taylor Booth. We hope you'll come and see them, but if you're not planning to be in Greenville, just call your Taylor Field Engineer—or write direct to Taylor Instrument Companies, Rochester, N. Y., or Toronto, Canada.

* * *

Pictured below is a Taylor High Speed Slasher Control System. Moisture content of the yarn—from the lightest filaments to the heaviest spuns—is controlled by regulating surface drying temperature of the cylinders. The most accurate yet devised, this system gives you quick, automatic start-up (reduces heat-up time as much as 75%) and accurate control regardless of operating temperature, thanks to the Taylor method of air injection.



See us at the 19th Southern Textile Exposition, Greenville, S. C., Booth 428.

Taylor Instruments
MEAN
ACCURACY FIRST
IN HOME AND INDUSTRY

AN EXECUTIVE Views

THE NEWS IN TEXTILES

Are kickbacks hurting textile chemicals?

IN ONE OF its recent issues, the trade magazine *Chemical Week* published an article, prepared by its staff, titled "Kickbacks Are Hurting Textile Chemicals." The gist of the article was that a substantial part—up to 25%—of textile chemical and dyestuff sales are made on the basis of bribes, kickbacks, and excessive entertainment of mill officials with purchasing authority.

The article was brought to the attention of the editors of TEXTILE INDUSTRIES by a man familiar with the textile industry, with the request that we do what we could to counteract what he termed a slur on both the textile and allied industries.

Accordingly, the editors asked for comments on the article from men closely familiar with the purchase of textile chemicals and dyestuffs. Numerous replies were received, both from suppliers and from buyers. These are summarized here.

If the charges and implications in the *Chemical Week* article are true, then obviously the industries involved should take appropriate action; if they are false, then there is need for the textile and chemical industries to refute an indictment based on hearsay and gossip. TEXTILE INDUSTRIES is happy to act as a sounding board for those who wish to present their views to the textile trade and its suppliers.

"Surprised . . Incredible . . Fantastic"

The PA for a large mill group suggests that the *Chemical Week* report sounds like the work of a "composite disgruntled salesman."

I was very much surprised to read the article in *Chemical Week* entitled "Kickbacks Are Hurting Textile Chemicals." It seems incredible that a magazine of the standing of *Chemical Week* would publish such an indictment, unless it had the necessary facts to back up its complaint.

But some of the statements are fantastic. . . .

It is difficult for me to see such things happening in this day of enlightened management. For any weakness of this kind (which will undermine a company) is a reflection on the management of the concern. One of the primary functions of management is the selection of the proper personnel for the job and fair compensation for the work performed. Where these two factors are combined, I am confident you will not find any evidence of kickbacks.

All in all, the article sounds like a report of a composite disgruntled salesman.

Hydro at 18¢?

The writer of the following letter is purchasing agent for a mill group. He emphasizes the point that the kickback example given in the first paragraph of the *Chemical Week* article is based on a price quotation which would have represented a substantial loss to the textile chemical supplier—even without a kickback.

The article printed in *Chemical Week* . . . . certainly deserves a reply. And I might add that it deserves a very strong reply.

. . . . I have been [an officer of a local purchasing agents' association] . . . . I have been for many years associated with the National Association of Purchasing Agents, and although in an organization as large as ours there may be a few "bad eggs," I assure you that 99 9/10% of the men associated therewith are reputable men who are intrusted with one of the most important jobs in their respective organizations.

You will note that this entire article is based on the first paragraph, which is printed in very heavy type, and I think that I can refute this first paragraph in its entirety. First off, the paragraph reads as follows: "A salesman for a reputable chemical company recently called on the purchasing agent of one of the largest vertical textile companies in the country. The salesman had hydrosulfite to sell, and he quoted a price of 18¢ lb."

. . . . it has been many years since we paid 18¢ per pound for hydrosulphite. The current price is 22¢ per lb, delivered. Secondly, the salesman did not call on one of the purchasing agents of one of the largest textile companies in the country, because any purchasing agent of a textile [company] would jump at the opportunity to buy hydrosulphite at 18¢ per lb, which is 4¢ per lb under the current market . . . . any purchasing agent would be very happy to save 4¢ per lb on a commodity as large as hydrosulphite.

As a matter of fact, our organization uses over . . . . pounds per year and if that reputable company would send that reputable salesman to see me he would get a very reputable contract for any amount he can handle at that price, and I assure you that he would not be questioned regarding any kickback or rebate.

Frankly, I am rather surprised that a magazine such as *Chemical Week* would publish such an article. It is a common trade practice that everyone who has any degree of buying power tries to take full advantage of every penny of [that] buying power. . . . As a result of this it is a common trade practice to have sliding discounts based on volume purchases. This is not only true in the chemical and dyestuff industry, but is also true in other industries. For example, you can purchase fluorescent tubes from General Electric, Sylvania, Westinghouse, or any other of the dealers on a sliding discount basis. . . . This is in no way construed as bribery or kickback; it is just [the] common sense way to do business and it is a common practice.

Although the article says that unethical practices of purchasing dyestuffs and chemicals are more prevalent in New York and New England than in the South, it no way lessens the sting to any man in the purchasing profession to have such articles written about his profession in a magazine as widely spread as *Chemical Week*.

(Continued on page 141)

DOW

"Locked in the Versene claw"—that's the fate of metal ions when they encounter chelation. They become trapped within the inner ring structure of a newly formed compound where they cannot hinder processing or mar product quality. This phrase is taking on new meaning for the textile industry, as the chemistry of chelation is reviewed.

The Chemistry of Chelation: Part IV

Applications in the textile industry · Kier boiling · Scouring Peroxide bleaching · Dyeing · A new kind of chemistry?

As has been discussed previously, the Versene® series and Versenol® series chelating agents will inactivate practically all metallic ions they contact in solution. The pH factor of the solution or of the finished product influences the choice of agent. To control iron in caustic solutions, look to Versene T®; in alkaline solutions—Versene Fe-3 Specific®; in acid—the Versene series. Or if solutions drift from one pH value to another, an effective Versene combination can be devised. It is important to remember that the Versenes remain stable and maintain effectiveness in alkaline media and at high temperatures. And, in complexing metal ions, they actually form new compounds that cannot be precipitated by common agents. The result is maximum ion-contamination control.

KIER BOILING

The kier-boiling or cotton saturator step is very important in cotton processing. This operation removes contaminants which, if allowed to remain on the fabric, have a serious effect upon subsequent finishing operations. Of these contaminants, metal ions—notably those of iron, calcium, and magnesium—are a frequently overlooked source of trouble. The difficulties associated with such ions are numerous, including iron staining, poor bleachability, pinholes, tenderizing, and poor dyeing; hence, it is important that the ions be inactivated.

Where stainless kiers or saturators are used, Versene T provides the ideal answer to problems covered by metallic ions. The chelating solution is simply added to the caustic kier-boiling solution. With cement-lined kiers, Versene S is substituted for Versene T. Versene S does not chelate alkaline-earth metals, hence will not harm the kier lining. When it is used, therefore, calcium and magnesium salts must be neutralized with Versene or Versenol in subsequent operations.

Versene T may be used to clean accumulated deposits of scale and rust from kier surface by making a blank run with a Versene caustic solution.

SCOURING

In the finishing of other types of goods, the scouring operation has a similar function and the same importance as the kier-boiling of cotton goods. Since the scouring operation is carried out at neutral or mildly alkaline pH's, Versene, Versene Fe-3 or Versenol is ordinarily used to provide the necessary complete metal ion control. It may be added to either the scouring soap or the scouring rinse water.

PEROXIDE BLEACHING

Rigid control of metal ions is likewise very necessary during the bleaching step. If iron is present in the system, it catalyzes the decomposition of even silicate-stabilized bleach. As a result, the cloth may be partially degraded to oxy-cellulose; then its tensile strength is lowered and pinholing may occur. If adequate control of metal ions has been achieved in kier-boiling or scouring operations, only minimal quantities of Versene are required in the bleach step to provide control of new contamination introduced in textile-processing chemicals and plant water. The advantages obtained through the use of Versene include whiter, stronger fabrics and lower bleaching costs. Silica deposition on equipment is inhibited or eliminated.

DYEING

If good metal-ion control has been achieved in previous finishing operations, the cloth will be in excellent condition for dyeing. If such ions are present, however, they may react with the dyestuff molecules to produce compounds different from the original dyestuff. When this happens off-color dyeing, uneven dyeing, crocking, and precipitation of dyestuffs can take place. There problems can be overcome by adding Versene or Versenol in the dye bath and soap-off bath.

A NEW KIND OF CHEMISTRY?

Is chelation the answer to all ion-contamination difficulties? Despite its many successful applications, the answer is sometimes "no". For, remarkable as it is—in locking up metal ions to improve processing and product quality—chelation does not solve all problems in every application. But wherever metal ions do pose a problem, investigation is worth while. And we'll help in every possible way. To see if you can put the Versene or Versenol products to profitable use, write Technical Service and Development, Dept. SC 908L, THE DOW CHEMICAL COMPANY, Midland, Mich.

you can depend on DOW CHEMICALS DOW

(Continued from page 139)

Discounts—When and Why

The following comments were written by the purchasing agent for a large mill group.

It is regrettable that such an article has apparently become necessary; however, I feel that there must be a very distorted picture painted here. I can assure you that we purchase a large quantity of chemicals annually and we do not receive any form of discount except the standard quantity trade discounts offered by vendors as part of their sales policy. For instance, less-carload lots are usually more expensive on a per pound, gallon, or drum basis than carload lots. This applies to many chemicals and unless we are able to accept delivery of a carload at any one time, we do not receive the carload price.

By far the large majority of chemical companies from whom we purchase have a standard contract which applies to us as well as their other customers, and we have always believed that our prices for similar quantities are equal with our competition. . . .

I am amazed at the remarks in this article pertaining to friendly poker games, expensive gifts, and paying for full cost of four years college education. This is not and will not be tolerated in our organization.

We believe strongly in the principle "honesty pays," and we believe that we will obtain the best cooperation from vendors and our operating personnel when this is practiced.

"Showed Bad Taste"

A superintendent of dyeing complains that isolated cases have been built into a general indictment.

I wish to state in the beginning that I have worked for several different mills in the South during the last thirty years, and have been responsible for the purchase of dyes and chemicals . . . . in amounts of from $10,000 . . . . to $600,000 monthly. Never once have I been approached by a salesman from any dyestuff or chemical house offering a so-called "kickback."

I have also made the statement many times that if I were offered a shady proposition by a salesman or company that person or company would be on my black list. A relatively inexpensive Christmas present, an invitation to dinner, or an occasional bottle of whiskey I have accepted in the spirit of good will. We in our company entertain our customers in the same manner; this I do not consider in the nature of a monetary kickback or an expensive gift such as mentioned in the article.

It is my opinion that no reputable dyestuff or chemical company would condone (or could afford) kickbacks and maintain its quality and research on which we in the textile business have learned to rely.

It has also been my observation . . . . that any purchasing agent or dyer responsible for the purchase of dyes and chemicals who falls a victim to such kickback offers sooner or later is known throughout the trade by all the salesmen (and they are a talkative bunch). It has also been my observation that this kickback taker is eventually found out and his reputation is generally known throughout the trade.

The above comments are not Pollyanna talk—they are cold hard facts of decency and honest living. This I believe is true of 99% of those of us who purchase dyes and chemicals for the textile trade, particularly in the South. . . .

. . . . the practice of bribes, so I have been told, was quite common in the northern states thirty or forty years ago. I am certain from actual observation that it was practiced, to some extent, in the South years ago. Such practice in the South, except in isolated cases, does not exist today Textile management, I think, is too alert to condone any such practice; the reputable dye and chemical companies do not condone kickbacks. Basically we are an honest, God-fearing lot, dyers and purchasing agents, trying to serve our companies to the best of our abilities.

I resent very much the broad statement in *Chemical Week* that "Unethical selling practices are still very much a part of doing business with the textile industry. . . . "

I personally think *Chemical Week* showed very bad taste in implying that the practice was more general than isolated. . . .

I also question . . . . surveys to determine the honesty or dishonesty of the purchasers of dyes and chemicals. Did some of the . . . . kickback boys actually admit that they had accepted a bucket of graft? Or was the survey made by questioning the . . . . companies and salesmen who offered the kickbacks?

Report Grafters to Management

Requests for bribes should be reported by the supplier directly to the PA's management, says this purchasing agent for a large dyeing and finishing plant (advice against this step is given in other letters).

I feel that "Kickbacks are Hurting Textile Chemicals" should be answered.

In my four years of purchasing in the textile industry I have never had any supplier offer either a cash rebate on purchases or unreasonable personal gifts or services. Our suppliers include most of the dyestuff and heavy chemical manufacturers.

I find it hard to believe that a reputable supplier would not report to the management of the buyer's company when a buyer asks for a cash rebate or other accommodation.

Like the August Winds

A cotton mill vice-president compares *Chemical Week's* article to the sound and fury of a national political convention.

. . . . was quite amused in reading it.

For many years I have been purchasing over $500,000 a year worth of chemicals and dyestuffs and I have never received a kickback nor has anyone ever approached me on the subject.

The statements in this article are almost as wild and biased as those you hear at national conventions, for I cannot believe this practice is prevalent here in the South.

"Not in 22 Years . . "

The author of the following letter is connected with a southern manufacturer of textile chemicals.

We very strongly object to this presentation, particularly as it may apply to the South. Our company does not and has not indulged in practices of this type. Furthermore . . . . we do not believe that any of our southern competitors have indulged in such practices.

In the 22 years that I have personally actively engaged in this business, I have not run across a single verified instance of our southern textile chemical suppliers making the sort of kickbacks described in this article. We can say further that we have never been approached by a purchasing agent or a superintendent who has requested anything of this nature.

"Grossly Distorted"

This official of a southern textile chemical supplier takes issue with the accuracy of the *Chemical Week* report. He explains the reasons for what some consider "excessive" entertainment.

. . . . we feel in our organization that, while some business is apparently done on this basis, the implication that twenty-five per cent of sales is made in this manner is grossly distorted and exaggerated.

We are keenly aware that some companies in both dyestuffs and chemicals have been suspected of such practices; however, we also realize that the suspicion of such dealings does not constitute proof, and very often a competitive salesman—unable to sell a product in certain plants—attempts to cover up his lack of sales ability by leaving false impressions of such tactics with the executives of that particular mill.

. . . . from our own observations, such unfair practices do exist—not only in dyestuffs and chemicals, but in many other materials bought in quantity. However, we would say the majority of buyers, particularly in large mills, are honest and sincere in their efforts to purchase materials that give the desired results at the lowest prices, consistent with quality. . . . . dishonest methods are very much in the minority.

Regarding "excessive" entertain-

* Gentlemen, we are agreed... Comer's appraisal is a fair one...

NEGOTIATIONS CAN NOW BEGIN, thanks to Comer's analysis of mill and machinery value. Comer's reputation for fair and accurate appraisals comes of a thorough knowledge of today's market. Add to this Comer's 24 years of service to the textile industry. COMER MACHINERY COMPANY connections reach into every textile center—large and small. This means fast action whether you want to liquidate or purchase . . . whether it's one machine or an entire mill. One call puts the expert knowledge and facilities of Comer at your command. To buy, to sell, to liquidate—put Comer to work for you.

Sales ★ *Purchases* ★ *Liquidations* ★ *Mergers* ★ *Fair Appraisals* ★ *For immediate action . . . contact*

*Excerpts from records of actual transactions handled by Comer.

COMER

Machinery Company

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5236 Wilkerson Boulevard, Charlotte, N. C. ● EXpress 9-5606

ment, we heartily agree that this has been brought to a point that has become a topic of conversation throughout the trade.

We feel that there are two outstanding causes for this—one, competition, the other Federal taxes—as practically all companies now give their salesmen and demonstrators much more liberal expense accounts than in the past. They feel that where so much of their profits is taken by the many forms of income and excise taxes, by the government, they are justified in spending more money in sales promotion to promote a greater volume of business, at no extra cost to them and where the deductions made for entertainment are kept within so-called "legal" bounds.

We feel that the article . . . in *Chemical Week* could leave a bad impression with textile manufacturers, casting a reflection on the integrity of the entire industry for the faults and misdeeds of the small percentage of suppliers who use methods that are not ethical. . . .

"Out of Innuendo by Gossip"

The writer of the following letter is a top official of a southern firm supplying chemicals to the textile industry.

Since I am a regular reader of *Chemical Week*, the "kickback" article on textile chemicals had been read several times. One of these readings followed a direct query from our puzzled sales manager wondering if the reported unethical sales practices were really taking place between an unknown group of unethical competitors and a geographical segment of the textile industry which did not fall between Virginia and Texas.

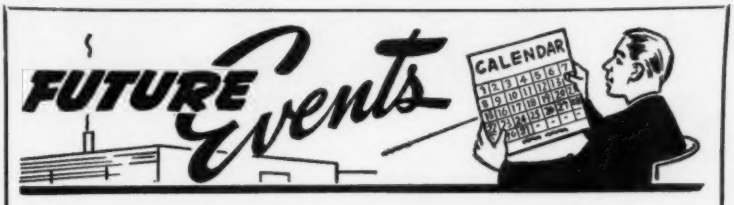
If the "time for a clean-up" is at hand, we say the little tough guy [in a cartoon accompanying the article] pictured with the cigar and in need of the detergent and scrub brush treatment from Mr. Textiles and Mrs. Dyestuffs was born out of Miss Innuendo by Mr. Gossip, and what the little . . . really needs is no syndet bath but a mouth washing with alkaline soap.

When any company supplying, or even offering, chemicals, dyestuffs and "accessory chemicals," hydrosulphite, "promising" or unpromising textile-chemical specialties to the textile industry can count as many as five unethical offers per month on salesmen's call reports [according to the article] it should be apparent that salesmen with better excuses and less imagination are needed.

Our idea of answers to the charges against the textile industry . . . . are: (1) that false reports by salesmen emanating from smoke-filled rooms and lobbies and not textile purchasing agents' offices are being taken too seriously by inept sales executives at desks in eastern offices, and, (2) that some of the chemical suppliers with their markets moving further away are prone to consider that price-cutting occurs when fair and honest quotations are made on textile specialties.

We are a relatively small textile chemical manufacturing concern located in the South and doing business strictly with the southern textile manufacturing and processing industry. Our selling ethics include considering our customers as our friends with whom we enjoy the finer things in life whenever possible. No purchasing agent, superintendent, overseer or mill official has ever proposed anything unethical to us, or has he been offered any "more subtle form of bribery" than a steak, a glass, a seat or two at a football game, or a

(Continued on page 293)



Date		Event	Location
Oct.	1-5	Southern Textile Exposition	Textile Hall Greenville, S. C.
	3-4	Chemical Finishing Conference	Hotel Statler Washington, D. C.
	5	Western New England Section AATCC	Hartford, Conn.
	6	Piedmont Section AATCC	Hotel Charlotte Charlotte, N. C.
	10-12	North Carolina Textile Manufacturers Association annual meeting	The Carolina Pinehurst, N. C.
	13	Georgia Slashing, Weaving and Maintenance Discussion (TOE)	Georgia Tech Atlanta, Ga.
	15	Western New England Section AATCC	Hartford, Conn.
	16-19	ASTM Committee D-13 on Textiles	The Warwick Hotel New York City
	17-27	International Knitting Machinery & Accessories Exhibition	Granby Hall Leicester, England
	18	Rhode Island Section AATCC	Johnson's Hummocks Grille Providence, R. I.
	19	Southern Textile Methods and Standards Association	Clemson House Clemson, S. C.
	19	Northern New England Section AATCC	Science Park Boston, Mass.
	22-26	44th National Safety Congress and Exposition	Conrad Hilton Chicago, Ill.
	27	Alabama Textile Operating Executives fall meeting	Thach Auditorium Auburn, Ala.
	27	Mid-West Section AATCC	Hotel Bismarck Chicago, Ill.
Nov.	1-2	AIEE Conference of Electrical Application for the Textile Industry	N. C. State College Raleigh, N. C.
	2	Philadelphia Section AATCC	Drake Hotel Philadelphia, Pa.
	27-30	National Chemical Exposition	Public Auditorium Cleveland, Ohio
Dec.	1	South Central Section AATCC	Hotel Patten Chattanooga, Tenn.
	8	Southeastern Section AATCC	Biltmore Hotel Atlanta, Ga.
1957			
Jan.	28-29	National Cotton Council annual meeting	St. Louis, Mo.
	28-31	Plant Maintenance & Engineering Show	Public Auditorium Cleveland, Ohio
Feb.	25-27	Textile Quality Control Conference	Georgia Tech Atlanta, Ga.
	27-28	Cotton Research Clinic, sponsored by National Cotton Council	Gen. Oglethorpe Savannah, Ga.
Apr.	4-6	American Cotton Manufacturers Institute annual meeting	Biltmore Hotel Palm Beach, Fla.
	23-24	National Knitted Outerwear Association annual meeting	Waldorf-Astoria New York City
	29-May 3	Knitting Arts Exhibition	Auditorium Atlantic City, N. J.
May	1-2	Fiber Society spring meeting	Clemson House Clemson, S. C.
Nov.	14-16	AATCC National Convention	Hotel Statler Boston, Mass.

POWELL NI-RESIST VALVES

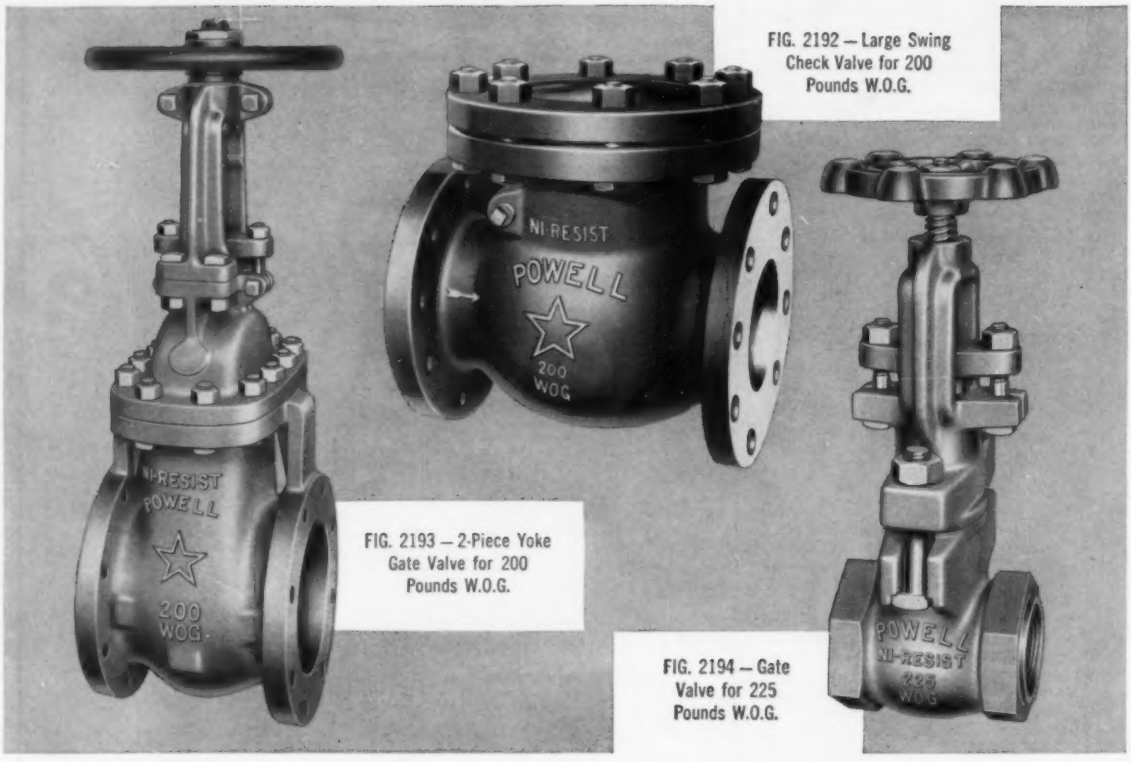


FIG. 2192 — Large Swing Check Valve for 200 Pounds W.O.G.

FIG. 2193 — 2-Piece Yoke Gate Valve for 200 Pounds W.O.G.

FIG. 2194 — Gate Valve for 225 Pounds W.O.G.

Resist corrosion, erosion, heat and wear

Powell Ni-Resist* Valves have far greater corrosion, erosion, heat and wear resistance than ordinary cast iron. Although comparable in strength and physical characteristics to gray iron, and resembling austenitic stainless steel, no other cast metal offers such a unique combination of useful properties.

While similar metals are now available, The Wm. Powell Company has selected Ni-Resist, the alloy cast iron developed by The International Nickel Company. Performance records, taken over a period of many years, conclusively prove that Ni-Resist has been used for valves, pumps and other equipment handling corrosive and erosive liquids with outstanding results.

Powell Ni-Resist Valves are especially adapted for handling soda and sulphate pulp and paper mill liquors, alkalies and sludges, and wherever high nickel-iron alloy valves are needed.

Consult your Powell Valve distributor. If none is near you, we'll be pleased to tell you about our Ni-Resist Valves as well as our *complete line* of *Powell Quality Valves* — all with *Performance Verified.*

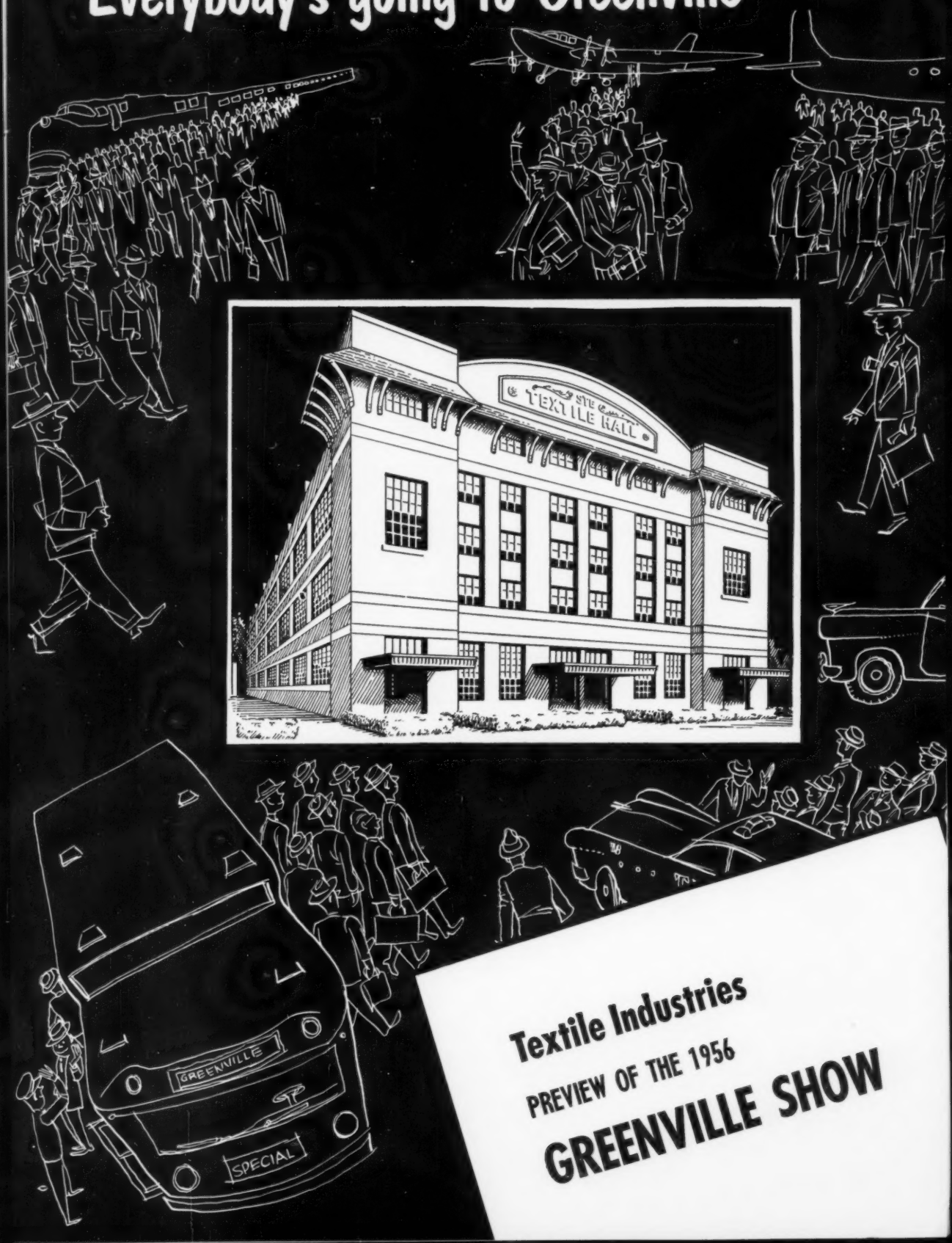
PERFORMANCE PV VERIFIED

BRONZE, IRON, STEEL AND CORROSION-RESISTANT VALVES

** Trademark of The International Nickel Co.*

The Wm. Powell Company, Cincinnati 22, Ohio . . . 110th YEAR

Everybody's going to Greenville



Textile Industries

PREVIEW OF THE 1956

GREENVILLE SHOW

You'll see lots of new equipment

at the 19th Southern Textile Exposition, Greenville, S. C., October 1 - 5, 1956

IT IS with all of TI's readers in mind, not only you who will have the good fortune of going but also you who must remain at the mill, that this 26-page (pp. 145-170) word-and-picture report of what will be displayed at the Greenville Show is presented.

For you who will attend, use of this information will enable intelligent planning of your visit for the most profitable utilization of your time at the Show. To facilitate this, a convenient guide to the exhibits is included (pp. 149-154). It contains floor plans of the exhibition areas of Textile Hall with the name of the exhibitor to which each booth has been assigned indicated in it and also a handy alphabetical list of textile industry suppliers participating in the show. This guide is perforated so that you may easily tear it out, make notes on it, and take it to Greenville with you. This should prove to be most helpful.

For you who cannot attend, here is a last minute account of the new machinery, equipment, supplies, and services to be featured at the Show. Much of the equipment to be exhibited for the first time is described in the New Equipment Parade (pp. 251-269). So you will want to check there for more information about items that are of interest to you. If you don't find the data there, write directly to the exhibitor (his address appears below his name here), or use the handy postage-free return card on page 273 and we'll ask that it be sent to you.

TI editors and business representatives will be at the Show in the same old location, Booth 408. Won't you stop by?

See you in Greenville!

ABBOTT MACHINE CO., INC......824
Wilton, N. H.
Exhibiting: 100-spindle automatic 6" traverse cheese winder—cheeses will contain from 5 to 6 lb of yarn net; 50-spindle automatic quiller; 40-spindle automatic quiller; 12-spindle automatic radial quiller.
F. L. Hendricks
L. S. Ligon, mgr.
E. W. Skinner
S. A. Roane
L. S. Ligon, Jr.

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2840 Archer Ave.
Chicago 8, Ill.
Exhibiting: Steel strapping, strapping machines, and equipment, including the new Model F 1 E strapping machine applying straps to cartons at high speed as they flow continuously over a special production line conveyor setup; various hand tools, including equipment used in the "Friction Seal" method of baling; motion picture showing the Model F3 strapping machine in actual mill use.
W. S. Huss, pres. Acme Steel Prod. Div.
G. R. Easley, mgr., southern area
R. C. Camp, dist. sales mgr.
D. C. Jorgensen, area special rep.
M. M. Brown, sales rep.
J. B. Farr, sales rep.
E. H. Jones, sales rep.
J. J. Jorgensen, sales rep.
E. S. Lumpkin, sales rep.
J. N. McLean, sales rep.
J. B. Quarles, sales rep.
J. H. Scott, sales rep.
S. F. Woodley, sales rep.
R. M. Snodell, exhibit and display mgr.

ADAMS, INC......829
4 East Lewis Plaza
Greenville, S. C.
Exhibiting: Adamstop for roving frame protection—equipment stops frame for bobbin runover, plugged flyer, singling, end breakage.
S. J. Adams, pres.
J. B. Adams, sales
Cecil Adams, sales

AGA DIV. ELASTIC STOP NUT CORP. OF AMERICA.....601
Elizabeth, N. J.
(See W. D. Dodenhoff)

AKRON SPOOL MFG. CO......465
Akron, Ohio
(See R. E. L. Holt)

ALDRICH MACHINE WORKS.....264
Greenwood, S. C.
Exhibiting: Finisher section of an Aldrich single process picker, featuring recent improvements; a Lummus enclosed steel blending feeder followed by a Lummus Pepper Shaker opener, a machine developed this year to help solve the problem of pepper trash in mechanically harvested cotton; an Aldrich feed table (for the Pepper Shaker opener to discharge upon); a Schofield PreCarder for use in mills processing synthetic fibers for fiber-to-fiber blending of mixed stocks.
A. P. Aldrich, Jr.
W. D. Wornall
Ben R. Morris
B. Gales McClintock
Charles R. Davies, Jr.

ALEMITE DIVISION.....405
Stewart-Warner Corp.
1826-1852 Diversey Parkway
Chicago 14, Ill.
Exhibiting: Oil-Mist systems of lubrication; centralized and conventional lubrication equipment.
Marshall N. Smith, sales rep.
Pat Blahut, sales rep.
Jim Minica, sales rep.

ALLEN BEAM COMPANY.....101
156 River Road
New Bedford, Mass.
Exhibiting: Model G high speed warper; head warper beam with 40" heads; adjustable beam head; loom beam head.
Woodrow F. Tinsley, rep.
J. Fred Timms, rep.
Wm. Petersen, mach. builder
E. Laffey, mach. rep.
R. Udell Thornton, pres.
Victor Mandeville, repair dept.

ALLEN-BRADLEY CO......414
224 West Greenfield Ave.
Milwaukee, Wis.
Exhibiting: Motor starters for both manual and magnetic operation; motor control accessories and pilot devices.
H. Rosenkranz, adv. mgr.
L. P. Spoon, rep.
L. P. Spoon, Jr., rep.
W. Huette, engr.

THE ALLENTOWN BOBBIN WORKS, INC......316
417-431 N. 14th St.
Allentown, Pa.
Exhibiting: Bobbins and spools for throwing of fine denier yarns.
Henry W. Mack, vice-pres.

ALLIED PRODUCERS & SUPPLY CO., INC......327
425 E. Hancock Ave.
Athens, Ga.
Exhibiting: Cloth spotters of kier and acid types; tar removers; custom-built primes and finishes for all types of floors.
Horace E. Breedlove, state mgr., S. C.
Julian A. Rachels, Jr., state mgr., N. C.
Marvin E. Tucker, state mgr., Ga. & Ala.
Richard E. Binet, dist. mgr., S. C.
Marshall W. Ramsey, dist. mgr., N. C.
Eugene C. Walters, pres.

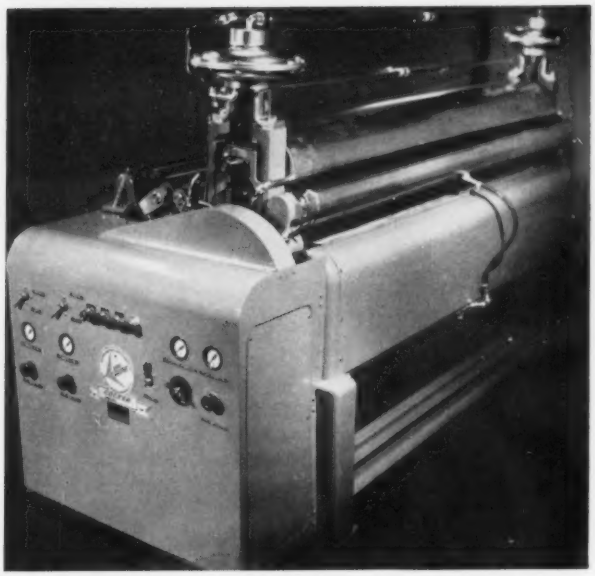
ALLIS-CHALMERS MFG. CO......416
P. O. Box 512
Milwaukee 1, Wis.
Exhibiting: Individual card drive with cutaway motor (Type GQ); air-cooled spinning frame motor (Type SQ1); cutaway textile motor (Type HAH); textile motor (Type GZQ) mounted on end frame with adjustable sheave—it will be operating; textile controls.
R. H. Cline, mgr. Charlotte dist.
A. I. Richardson, sales rep.
W. E. Scott, sales rep.

BUDA DIV. of Allis-Chalmers.....601
(See W. D. Dodenhoff)

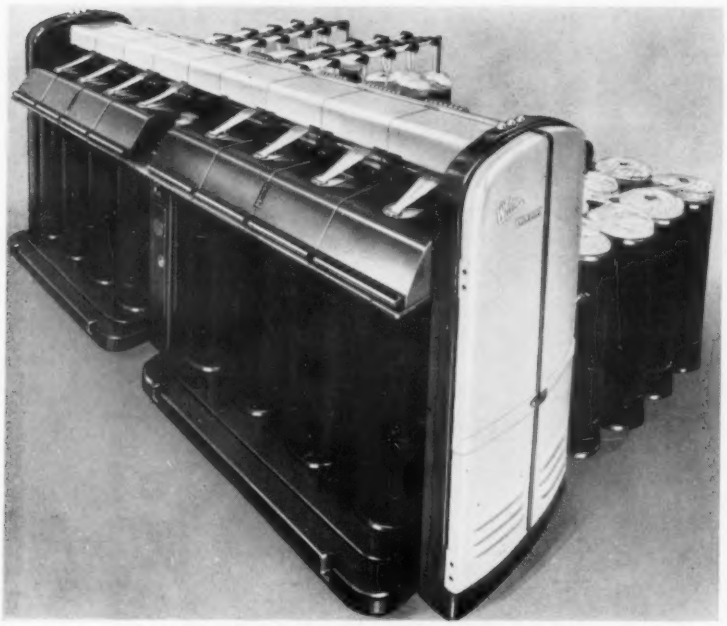
LOUIS ALLIS CO......807
427 E. Stewart St.
Milwaukee 1, Wis.
Exhibiting: Adjusto-spede a-c adjustable speed drive; totally enclosed, self-cleaning textile motor; rapid reversing motor; motor running in water.
James C. Smith, Charlotte dist. mgr.
Maurice Weitekamp, Atlanta dist. mgr.
Wm. Overstreet, Richmond dist. mgr.
Robert Murphy, Atlanta sales engr.
Allen Barron, Birmingham dist. mgr.
Bud Becker, textile specialist

ALVEY CONVEYOR MFG. CO......514
9301 Olive St. Rd.
St. Louis 24, Mo.
Exhibiting: Operating scale model of conveyor system, illustrating automatic selection and storage of loads, and auto-

The Unifil loom winder by Universal.



Cocker's new size box, the "Sizemaster." Details on page 262.



The Whitin "Even Draft" drawing frame.

Hyster lift truck with Monomast upright.

Reliance lint-proof textile motor.

matic dispatching and merging.
J. M. Alvey, Jr., ch. elec. engr.
C. S. Easley, dist. mgr.
L. D. Burdette, sales engr.
C. H. Adamson, asst. chief engr.
C. A. Burton, gen. sales mgr.
L. F. Shattuck, dist. mgr.

AMERICAN AIR FILTER CO., INC.....463
215 Central Ave.
Louisville 8, Ky.
Exhibiting: Auto-airmat lint filter, electrostatic precipitator, and unit air filters for textile mills.
H. J. Noles, mgr.
J. W. May, asst. mgr.
R. V. Matkin, dist. sales mgr.
Kirk Cousart, rep.

American Air Filter continued
E. V. Overcash, rep.
W. S. Mitchell, rep.
T. O. Curlee, rep.
John Rittelmeyer, rep.
Don McRae, rep.

AMERICAN BALMES CORP.....601
Newark, N. J.
(See W. D. Dodenhoff)

THE AMERICAN CRAYON CO. 332
1706 Hayes Ave.
Sandusky, Ohio
Exhibiting: Marking and coloring materials for production men, shop foremen, designers, and textile students.
John Hester
W. T. Schleicher

AMERICAN FLOOR PRODUCTS....102-A
4922 Wisconsin Ave., N.W.
Washington 16, D. C.

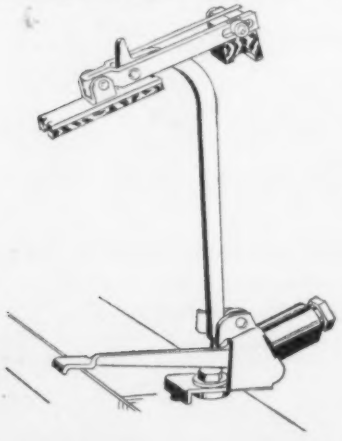
AMERICAN LAVA CORP. 453
Cherokee Blvd.
Chattanooga 5, Tenn.
Exhibiting: AlSiMag wear-resistant ce-

ramic thread guides and other textile machinery parts; lap spools, winding forms, pirn caps, etc., made of Lamicoid, paper and canvas phenolic combinations as manufactured by Mica Insulator Co.
R. A. McGinnis, vice-pres. and gen. mgr.
R. B. Williams, div. mgr.
J. B. Shacklett, div. sales mgr.
J. E. Spearman, sales mgr. textile prod.
J. S. Gosnell, sales rep.
James W. Crisp, sales rep.
W. M. Crittenden, sales tech.
W. J. Geary, sales rep.

AMERICAN MOISTENING CO. 812-A
Providence, R. I.
Exhibiting: The new Amco loom cleaner; a small evaporative cooling system; humidity controls; unit humidifier—a self-contained unit which cannot get clogged with lint and needs no compressed air in its operation; atomizers, diaphragm valves; sling psychrometers; and a new self-cleaning mine spray.
Marvin McCall, vice-pres. and gen. mgr.
M. H. Irons, chief engr. & asst. gen. mgr.
W. A. Mullins, sales engr.
S. B. Blanton, sales engr.
Joseph Walmsley, sales engr.
J. E. Townsend, sales engr.
J. H. Waldrip, sales engr.
J. D. Johnson, sales engr.
L. D. Terry, sales engr.
H. F. McKnight, dept. engr.
W. W. Rhodes, Jr., dept. engr.
Mitchell Fain, engr.
Dixon A. Lamb, dist. supt. of constr.

Spinning frames equipped with the Augusta fiber suction system by Dodenhoff.

Adjustable greaseless saddle with spring weighting (Cole Engineering).



AMERICAN MONORAIL CO.....111
13107 Athens Ave.
Cleveland 7, Ohio
Exhibiting: Automatic cleaning equipment for frames, ceilings, and underframes; crane type loom cleaners; overhead handling equipment; Landahl chainless conveyors.
C. L. Fell, vice-pres. marketing
E. F. Kulp, dist. mgr. Charlotte
H. A. Rehfeld, dist. mgr. Atlanta
L. R. McEachern, dist. mgr. Greenville
Henry McKinney, agent Chattanooga
C. P. Newell, agent Birmingham
E. H. Doerger, adv. mgr.
J. Welborn Cook, sales rep.
J. R. Whitted, sales rep.
E. J. Whitted, sales rep.

THE AMERICAN PULLEY CO. 251
4200 Wissahickon Ave.
Philadelphia, Pa.

AMERICAN SAFETY TABLE CO. 234
224 Fifth Ave.
New York, N. Y.
(See Hollister-Moreland)

AMERICA'S TEXTILE REPORTER (Publication) 226
286 Congress St.
Boston 10, Mass.

ANHEUSER-BUSCH, INC. 512
721 Pestalozzi St.
St. Louis 18, Mo.
Exhibiting: Starch products.
Walter P. Hope, S. E. reg. mgr.
Dr. B. L. Scallet, assoc. dir. central research
K. M. Battenfield, mgr. tech. sales service
R. F. Amacher, bulk sales mgr.
C. J. Liebman, tech. sales ser. rep.
A. H. Luetkemeyer, mgr. reg. operations

ARMSTRONG CORK CO. 144
Liberty & Charlotte Sts.
Lancaster, Pa.
Exhibiting: Anti-static cots; high draft aprons; loom supplies, including take-up roll covering, press roll covering, pickers, loom binder covering; miscellaneous mill supplies.

J. V. Ashley	T. H. Weaver
T. L. Hill	C. A. Bates
W. T. Coker	W. A. Simmons
H. H. Jordan	C. H. Cooper
J. T. Vernon	T. P. Rosser

ARMSTRONG MACHINE WORKS.....457
816 Maple St.
Three Rivers Mich.
Exhibiting: A glass model of the No. 812 inverted bucket steam trap, operating on steam at 7 psi pressure, showing how the trap handles air and dirt as well as condensate; sectional models of other styles of traps; improved model pipe line strainer in both semi-steel and cast steel.
T. M. Reed, asst. sales mgr.
O. E. Ulrich, factory rep.
Parke Terry, Allen T. Shepherd Co.
DeWitt Skinner, Allen T. Shepherd Co.
Dolph Shepherd, Allen T. Shepherd Co.
Wayne Hagaman, Allen T. Shepherd Co.
Theo. Abbey, Abbey Steam Specialty Co.

ASHWORTH BROS, INC.....124
89 Globe Mills Ave.
Fall River, Mass.
Exhibiting: Card clothing for cotton, wool, worsted, synthetic, silk, rayon, and asbestos cards; clothing for all types of napping machinery; brush clothing and card clothing for special purposes; licker-in and garnet wire; Platt's metallic wire.
R. C. Ashworth, Jr., pres.
W. J. Flynn, Jr., vice-pres.
Henry Ashworth, asst. treas.
J. M. Reed, sou. mgr.
A. E. Johnston, Jr., mgr. Greenville
J. E. Seacord, asst. sou. mgr.
William Halstead, mgr. Atlanta
Ray Clary, sales and ser.
Thurman Hart, sales and ser.
A. E. Johnston, Sr., sales and ser.
C. C. Withington, Jr., sales and ser.
F. L. Armitage, sales and ser.

ATLANTA BRUSH CO.....451
320 Tanner St., S.E.
Atlanta 2, Ga.
Exhibiting: Textile and industrial brushes, including brushes for hand cleaning, track brushes for overhead cleaners, nylon doffer brushes, nylon for refilling top flat and auxiliary card brushes, and water-proof blocks and cores used with nylon filling on wet process brushes.
Wm. C. Perkins, vice-pres.
G. B. Snow
A. W. Dillard
Ansel McNeill

ATLANTA PAPER CO. 219
950 West Marietta St., N. W.,
Atlanta 2, Ga.
Exhibiting: Folding cartons; corrugated shipping containers.
Nat Steadman
M. D. McMullen

ATLANTIC GELATIN 501
Division of General Foods
Woburn, Mass.
(See Ira L. Griffin)

BACHMANN UXBRIDGE WORSTED CORP. 501
Uxbridge, Mass.
(See Ira L. Griffin)

BAHAN TEXTILE MACHINERY CO....140
Greenville, S. C.

THE BAHNSON CO. 832
1001 South Marshall St.
Winston-Salem, N. C.
Exhibiting: Vacuum collection equipment; spinning frame creels; traveling cleaners; air conditioning equipment.
A. H. Bahnson, Jr., pres.

Frederick Boxall	E. G. Byrum, Jr.
F. L. Phillips	A. E. Thomas
J. M. Cranford	Frank Walters
M. O. Bradshaw	Ira L. Brown
R. B. Crosland	Joe Browning

BANCROFT BELTING CO.....229-A
Boston, Mass.
(See Wilson F. Hurley)

BARBER-COLMAN CO. 254
1300 Rock St.,
Rockford, Ill.
Exhibiting: Model M warp tying machine; Model 66 FSH drawing-in machine; Model DW super-speed warper.
F. D. Taylor, mgr. Greenville

BARKER INSTRUMENT & MACHINE CO. 110-B
North Parker Rd.
Greenville, S. C.
Exhibiting: Time clocks; job recorders; synchronous and the new electronic clock system by Stromberg Time Corp.; counting devices manufactured by Durant Mfg. Co.; cylinders, both air and hydraulic, by Hanna Engineering Works; a complete line of timers by Industrial Timer Corp.; repeat cycle counter by Counter & Control Corp.
H. V. Barker, owner and mgr.
J. V. Barker, salesman
Norman Rivkees, salesman
Frank Mullins, salesman
Henry Allen, salesman

BARRELED SUNLIGHT PAINT CO. 223-A
Providence 1, R. I.
Exhibiting: Heavy duty finishes for textile plant maintenance; "engineered color" for better seeing and working conditions.
Fred K. McCarthy, vice-pres. sales
Henry A. Solie, sales mgr.
Cecil L. Duffie, rep.
Thomas C. Roggenkamp, rep.
Preston R. Singletary, rep.

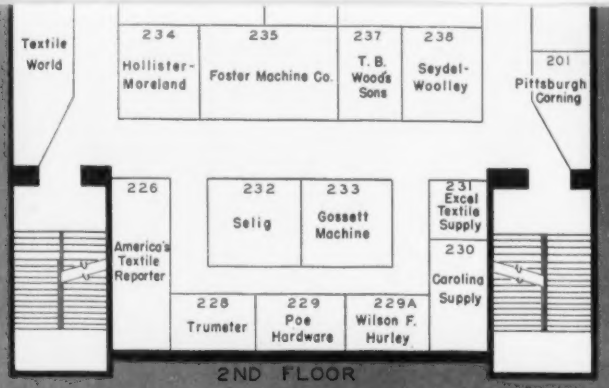
THE BASSICK CO. 410
437 Howard Ave.
Bridgeport, Conn.
Exhibiting: Casters for the textile industry.
A. J. Israel, sales engr.
Robert Huber, salesman
Ed Ripley, salesman
Harold Bursley, salesman

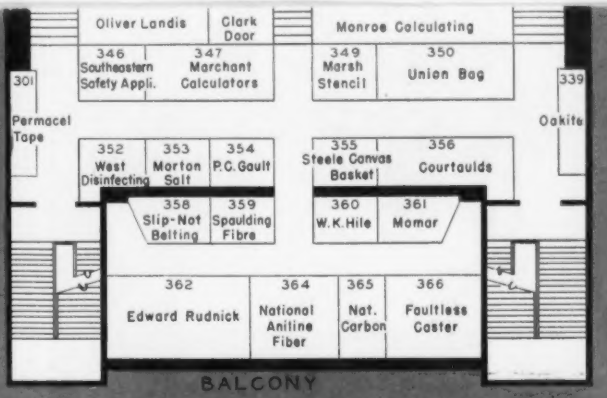
LOUIS P. BATSON CO. 221
Greenville, S. C.
(See Batson Mfg.)

BATSON MFG. CO. 221
P. O. Box 1055
Greenville, S. C.
Exhibiting: Chapman static eliminators manufactured by The Portland Co.; products of T. J. Murphy Fur Co. and Louis P. Batson Mfg. Co.

BEETLE BOAT CO. 601
New Bedford, Mass.
(See W. D. Dodenhoff)

EDWARD H. BEST & CO., INC.....306
210 Lincoln St.
Boston 5, Mass.
Exhibiting: Industrial fabrics and felts used by the textile industry.
John W. Hill, mgr.
William C. Hames, sales and ser. rep.
B. C. Yates, Jr., sales and ser. rep.





Textile Industries

FLOOR PLAN OF THE 1956

GREENVILLE SHOW

Second Floor and Balcony on this side

For Ground Floor plan, see other side

Tear out and take with you to the Show

Alphabetical list of exhibitors at the 1956 Greenville Show

Name	Booth	Name	Booth	Name	Booth	Name	Booth
Abbott	824	Curtis & Marble	245	Lestershire Spool	213	Scott Testers	401
Abington	108A	Curtiss-Wright	265	Lincoln Engineering	509	Selig Co.	232
Acme Steel	516	Cutler-Hammer	429	Linde Air Products	335A	Seydel-Woolley	238
Adams	829	Daily News Record	210	Lindly	817	Shell Oil	805

Textile Industries
FLOOR PLAN OF THE
GREENVILLE SHO
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Name	Booth
Abbott	824
Abington	108A
Acme Steel	516
Adams	829
AGA Div. Elastic Stop Nut	601
Akron Spool	465
Aldrich Machine	264
Alemite	405
Allen Beam	101
Allen-Bradley	414
Allentown Bobbin	316
Allied Producers	327
Allis-Chalmers	416
Allis-Chalmers Buda Div.	601
Louis Allis	807
Alvey Conveyor	514
American Air Filter	463
American Balmes	601
American Crayon	332
American Floor Products	102A
American Lava	453
American Moistening	812A
American MonoRail	111
American Pulley	251
American Safety Table	234
America's Textile Reporter	226
Anheuser-Busch	512
Armstrong Cork	144
Armstrong Machine	457
Ashworth Bros.	124
Atlanta Brush	451
Atlanta Paper	219
Atlantic Gelatin	501
Bachmann Uxbridge	501
Bahan Textile Machinery	140
Bahnson	832
Bancroft Belting	229A
Barber-Colman	254
Barker Instrument	110B
Barrelled Sunlight	223A
Bassick	410
Louis P. Batson	221
Batson Mfg.	221
Beetle Boat	601
Edward H. Best	306
Binney & Smith	335
Birch Bros.	247
Benjamin Booth	115
Bouligny	822
Bowen-Hunter	213
Brainard Steel Div.	825
Browning	307
Brush Electronics	241
Bullard Clark	448
Burlington	465
Byers	331
Carniti	835
Carolina Belting	212
Carolina Supply	230
Carter	108
Cen-Tennial Cotton Gin	821
Chainveyor	601
Chapman Neutralizer	221
Charlotte Mfg.	143
Clark-Cutler-McDermott Annex	6
Clark Door	342
Clark Equipment	812
Clinton Corn Processing	206
Coats & Clark	220
Cocker Machine	830
Cole Engineering	572
Coleman	822
Collins Machine	817
Colson	825
Container Corp.	129
Continental Diamond Fibre	106
Cook & Co.	835
Corn Products Sales	456
Courtaulds (Alabama)	356
Dana S. Courtney	130
Crompton & Knowles	141
Cross Sales	334
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Curtiss-Wright	265
Cutler-Hammer	429
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Davis & Furber	209B
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Dixie Leather	507
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Draper	134
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Truscon Laboratories	325
Union Bag—Camp Paper	350
Universal Winding	826
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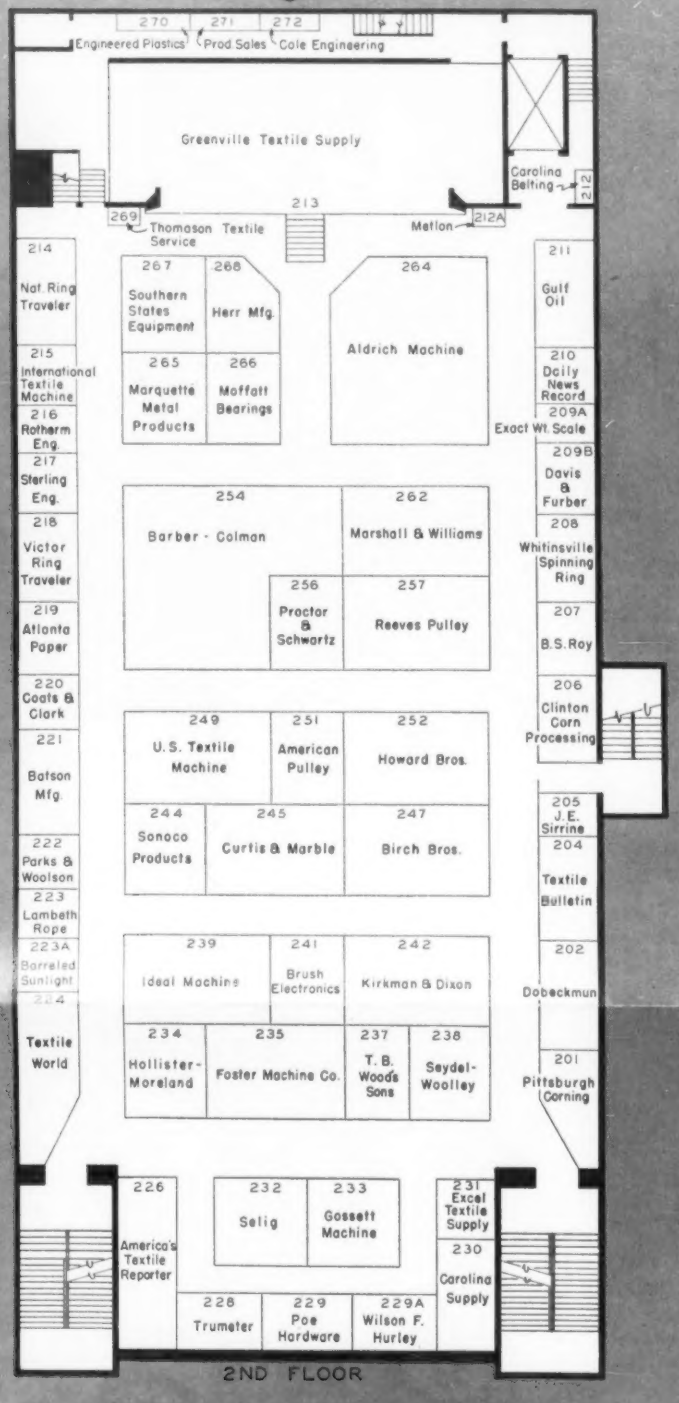
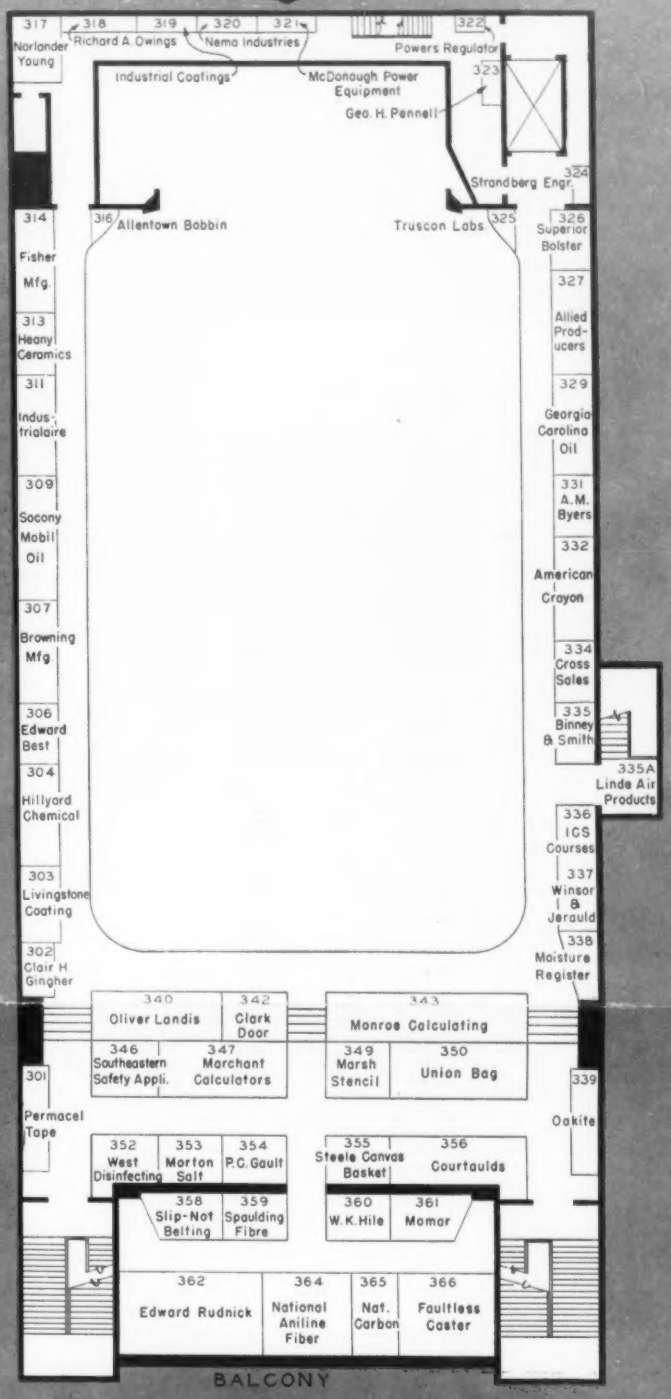
U. S. Ring Traveler	801
U. S. Textile Machine	249
Uster Corp.	700
Veeder-Root	107
Vermont Spool	130
Victor Ring Traveler	218
Walworth	809
Warren Belting	229A
Watson & Desmond	130
Watson-Williams	130
West Disinfecting	352
Westinghouse	445
Westinghouse Lamp Div.	444
Weston Electrical	511
West Point Foundry	813
White & Co.	502
Whitin	818
Whitinsville Ring	208
Wilkerson	311
Winsor & Jerauld	337
T. B. Wood's Sons	237
Wrenn Bros.	825
Yale & Towne	822
Yeomans Textile Mach-	Annex 6
Zinser	130
N. Zivy & Cie	835

Booths 201-272



2ND FLOOR

Booths 301-366



BALCONY

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Textile Industri

FLOOR PLAN OF TH

GREENVILLE S

TEXTILE HALL OC

Ground Floor is shown here. See other side for Second Flo

To quickly locate an exhibitor, refer to alphabetical list for booth number and then look for booth number on floor black arrows will guide you to the 100, 200, 300, etc., se

Why not tear out this handy guide and take it to Green

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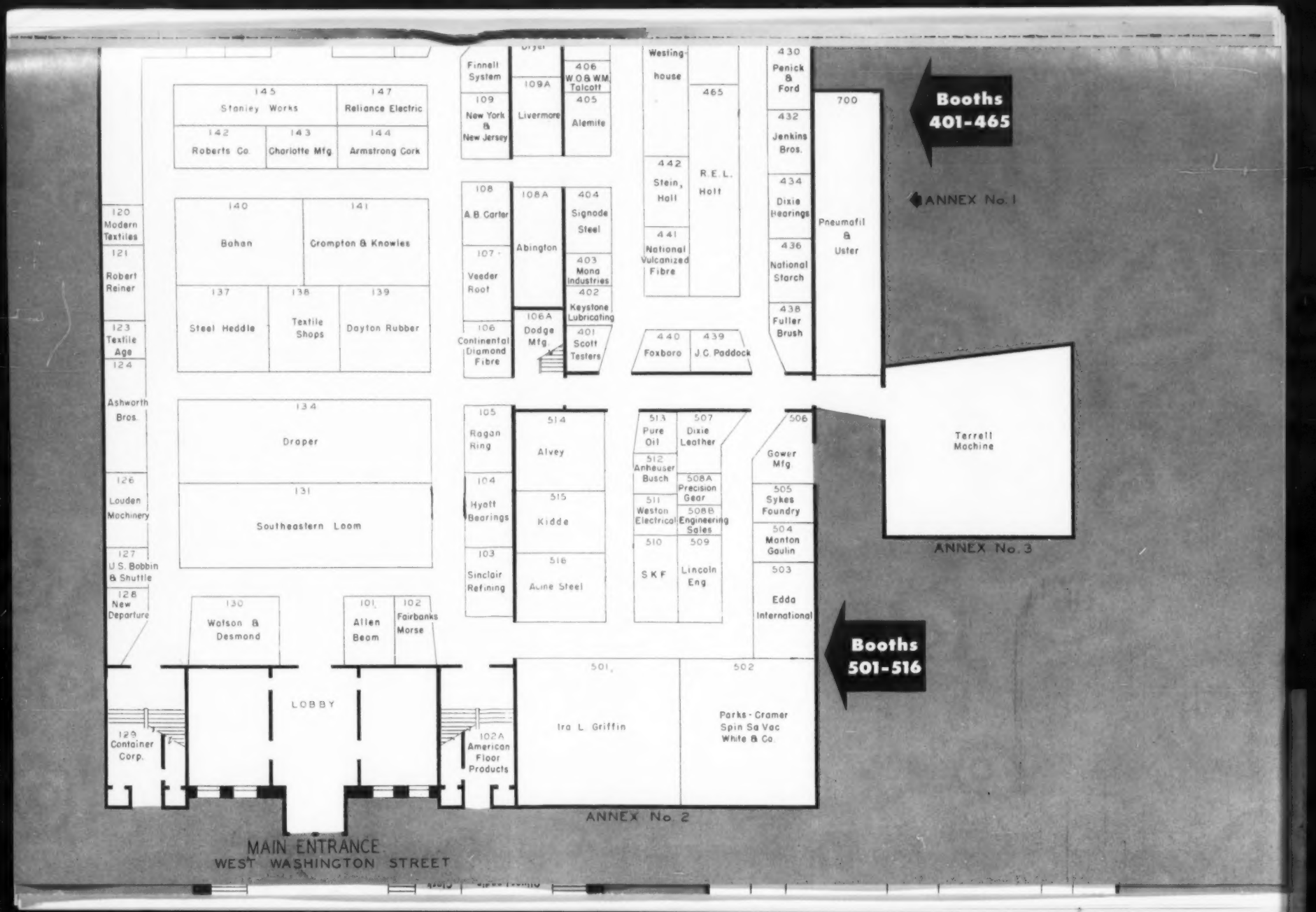
SHOW

OCT. 1-5

d Floor and Balcony.

l list on other side
floor plans. The big
tc., series of booths.

Greenville with you?


Booths 401-465
ANNEX No. 1
Booths 501-516
ANNEX No. 3
ANNEX No. 2
MAIN ENTRANCE
WEST WASHINGTON STREET
LOBBY
145 Stanley Works
147 Reliance Electric
142 Roberts Co.
143 Charlotte Mfg.
144 Armstrong Cork
140 Bahan
141 Crompton & Knowles
137 Steel Heddle
138 Textile Shops
139 Dayton Rubber
134 Draper
131 Southeastern Loom
130 Watson & Desmond
101 Allen Beam
102 Fairbanks Morse
120 Modern Textiles
121 Robert Reiner
123 Textile Age
124 Ashworth Bros.
126 Louden Machinery
127 U.S. Bobbin & Shuttle
128 New Departure
129 Container Corp.
102A American Floor Products
Finnell System
109 New York & New Jersey
109A Livermore
406 W.O.& W.M. Talcott
405 Alemite
108 A.B. Carter
107 Veeder Root
106 Continental Diamond Fibre
108A Abington
106A Dodge Mfg.
404 Signode Steel
403 Mona Industries
402 Keystone Lubricating
401 Scott Testers
105 Ragan Ring
104 Hyatt Bearings
103 Sinclair Refining
514 Alvey
515 Kidde
516 Acme Steel
Westing-house
465 R.E.L. Holt
442 Stein, Hall
441 National Vulcanized Fibre
440 Foxboro
439 J.C. Paddock
513 Pure Oil
512 Anheuser Busch
511 Weston Electrical
510 SKF
507 Dixie Leather
508A Precision Gear
508B Engineering Sales
509 Lincoln Eng.
506 Gower Mfg.
505 Sykes Foundry
504 Manton Gaulin
503 Edda International
501 Ira L. Griffin
502 Parks-Cramer Spin Sa Vac White & Co.
430 Penick & Ford
432 Jenkins Bros.
434 Dixie Hearings
436 National Starch
438 Fuller Brush
700 Pneumafil & Uster
Terrell Machine

BINNEY & SMITH, INC. 335
380 Madison Ave.
New York 17, N. Y.
Exhibiting: Textile mill crayons.
Max R. Vogel, chief chemist
Wayne G. King, rep.
O. Joseph Andersen, rep.

BIRCH BROTHERS, INC. 247
32 Kent St.
Somerville 43, Mass.
Exhibit.ng: Pocket-size balance for determining yarn count anywhere in mill; fulling mill yardage counter; curved bar neoprene covered expander roll; stainless stee adjustable spiral opening roll unit for removing creases and turned selvages; laboratory padder (two-roll type); new and compact stainless steel scutcher; butt seam grey room sewing machine; portable chain stitch and butt seam sewing machines; heavy duty 20-ft railway sewing machine with Union Special head for carpets; high speed tacking head; pneumatically-operated automatic cut-off winder.
Harold W. Birch
Clifford W. Birch, Jr.
John C. Cosby
Richard Briggs

BENJAMIN BOOTH CO. 115
Allegheny Ave. & Janney St.
Philadelphia 34, Pa.
Exhibiting: Card clothing—conventional and "Strip-O-Matic;" condenser tape; bands for spinning frames and twisters.
E. Allen Snape, Jr., pres. and treas.
Norman Bush, rep.
Charles Stover, agent for Ga. and Ala.

BOULIGNY CO. 822
Div. of R. H. Bouligny, Inc.
Charlotte, N. C.
(See Coleman Co.)

BOWEN-HUNTER BOBBIN CO......213
East Corinth, Vt.
(See Greenville Textile Supply)

BRAINARD STEEL DIVISION.....825
Sharon Steel Corp.
Warren, Ohio
(See Wrenn Bros.)

BROWNING MANUFACTURING CO. 307
Maysville, Ky.
Exhibit.ng: V-drives; chain drives; paper pulleys; variable pitch drives; flexible couplings.
L. L. Browning, vice-pres.
T. Frank Jones, sales mgr.
A. W. Wyatt, salesman
H. B. Ives, salesman
R. V. Burton, salesman

BRUSH ELECTRONICS CO. 241
3405 Perkins Avenue
Cleveland 14, Ohio

THE BULLARD CLARK CO. 448
E. H. Jacobs Southern Div., Charlotte, N. C.
E. H. Jacobs Northern Div., Danielson, Conn.
Exhibiting: Jacobs "Verybest" weaving loom supplies, including lug straps, strapping, dobby cords, picker and jack sticks, sweepsticks and connectors, pickers, bumpers, race plates, binders, swells, cloth roll blocks, box plates, brake lining, sand and take-up roll covering, turnbuckles, automatic lubricators.
Edward J. Bullard, pres.
William R. Muller, vice-pres.
C. W. Cain, vice-pres.
A. M. Romero, export mgr.
S. B. Henderson, ser. engr.
Doyle Stansell, ser. engr.
L. L. Froneberger, Jr., ser. engr.
Ralph M. Briggs, Jr., ser. engr.
Frank W. Beaver, ser. engr.
Bill Heacock, ser. engr.
Thomas Soucy, Jr., ser. engr.
John Normington, ser. engr.

BURLINGTON INDUSTRIES, INC......465
Box 1379
Greensboro, N. C.
(See R. E. L. Holt)

A. M. BYERS CO. 331
Clark Bldg.
Pittsburgh 22, Pa.
Exhibiting: Wrought iron pipe, plate, and bar samp es.
H. R. Rowland, gen. sales mgr.
J. A. Cain, Atlanta div. mgr.

A. M. Byers continued
H. E. McKenzie, field ser. engr.
F. D. Pryor, Jr., field ser. engr.

A. CARNITI & CO. 035
Oggiono, Italy
(See Stellite American)

CAROLINA BELTING CO. 212
19 Blair St.
Greenville, S. C.
Exhibiting: Reception booth with telephone for convenience of visitors.
Charles F. Miller, sales mgr.
C. T. Allen
Earle Davis
J. W. Slaughter
Dean N. Van Dyke

CAROLINA SUPPLY CO. 230
35 West Court St.
Greenville, S. C.
Exh.biting: Space for visitors.
H. W. Harrison, sales mgr.
T. C. Mardre — F. R. Casey
L. J. Farrow — J. O. Crawford
B. E. Elletson — H. L. Stevenson
B. F. Verdin

A. B. CARTER, INC. 108
226 Linwood St.
Gastonia, N. C.
Exhibiting: Boyce weavers' knotters; Cartabond; spinning and twister travelers.
R. A. Haynes, rep.
W. L. Rankin, rep.
P. L. Piercy, rep.
D. E. Phillips, rep.
J. K. Davis, rep.
J. R. Richie, rep.
J. B. Carter, plant mgr.
E. Haines Gregg, sec.

CEN-TENNIAL COTTON GIN CO.....821
Columbus, Ga.
Exhibiting: Textile Fiber Opener which completely separates fibers, removes all residual heavy trash, and blends stock thoroughly; Aerator for pre-opening and blooming of stock; Separator which provides air suction to convey stock and separates much of light trash from stock.
S. K. Dimon, pres.
J. Edward Brown, sales rep.
W. A. Harmon, textile engr.

CHAINVEYOR CORP. 601
Los Angeles, Calif.
(See W. D. Dodenhoff)

CHARLOTTE MANUFACTURING CO. 143
421 Penman St.
Charlotte, N. C.
Exhibiting: An operating fillet machine to show how card clothing is made; clothing for all types of cards, including cotton, wool, asbestos, etc.
A. D. Ennis, salesman
R. G. Spratt, Jr., pres.

Charlotte Mfg. continued
Harmon Geiger, rep.
Marion Rodgers, rep.
A. J. Turner, engr.
R. P. Bullard, plant supt.
Sam Bernardo, rep.
C. A. Spratt, sec. & treas.

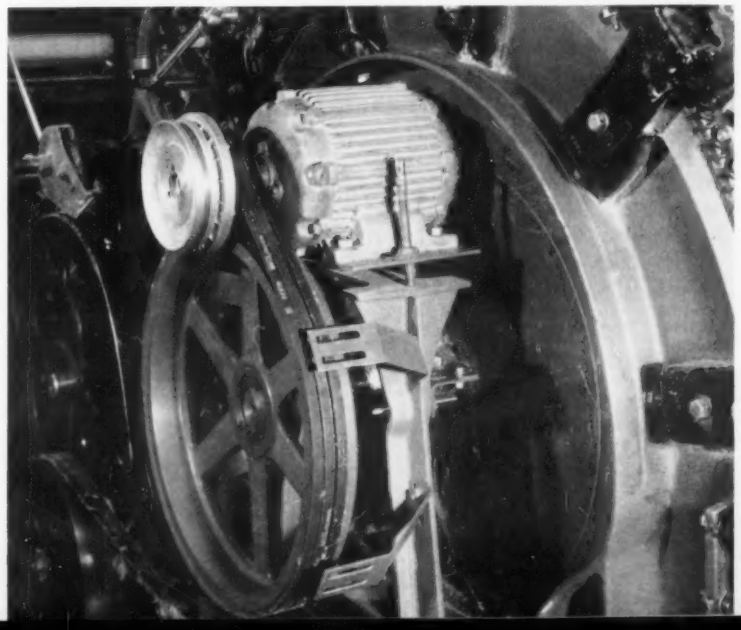
CLARK-CUTLER-McDERMOTT CO. .....**Annex #6**
Fisher St.
Franklin, Mass.
Exhibiting: Air-loc anti-vibration machinery mounting pads.
F. Roland McDermott, vice-pres.
Robert H. Schmitt, sales mgr.
J. Murray Stevens
J. L. McWilliams, salesman
T. R. McDermott, salesman
(See also Yeomans Textile Machinery)

CLARK DOOR CO., INC. 342
515 Hunterdon St.
Newark 8, N. J.
Exhibiting: Bifo'd model Prest-O-Matic door unit, featuring the Clark Safety Edge which automatically reverses the door if it strikes personnel while closing, and a pedestrian pass door which is a small door built into the parent door to eliminate the need for opening the large door for passage of each pedestrian.
Henry B. Clark
Henry B. Clark, Jr.
James H. Harris, Jr.

THE CLARK EQUIPMENT CO. 812
Industrial Truck Div.
Battle Creek, Mich.
Exhibit.ng: A premium line of gas-powered lift trucks, the "Clarklifts," featuring automatic transmission, self-adjusting brakes, 12-volt electrical system, etc.
B. E. Phillips, asst. gen. sales mgr.
John Shand, dist. sales mgr.
J. W. Kelly, prod. sales mgr.
Peter Paul Lukas
G. E. Boyce
E. V. Wiley
H. R. Hansen, mgr. shows and exhibits

CLINTON CORN PROCESSING CO. 206
Clinton, Iowa
Exhibiting: Space for visitors.
Continued next page

The Dodge dry fluid card drive (protective cover removed to show components).



Clinton Corn continued
A. C. Junge, mgr. bulk sales
R. C. Rau, div. sales mgr.
C. F. Cline, Jr., dist. sales mgr.
J. A. Tomlin, sales rep.
B. L. Estes, sales rep.
Grady Gilbert, sales rep.
Charles C. Calhoun, sales rep.
E. F. Patterson, chemist & field ser. engr.
R. A. Conzett, chemist

COATS & CLARK, INC. 220
1292 McCarter Highway
Newark 4, N. J.
Exhibiting: Nylon travelers, sewing threads, crochet threads, knitting yarns, embroidery threads, wool and zippers.
R. H. Wilcox, mgr. traveler dept.
T. B. Farmer, sales engr.
M. H. Cranford, sales engr.

COCKER MACHINE & FOUNDRY CO. 830
Chestnut St.
Gastonia, N. C.
Exhibiting: A high speed cotton slasher with a new size box called the Cocker "Sizemaster"—the machine will be operable and complete with temperature controls; Model BW-40C high speed cotton warper for 40" section beams; Model SD-54 dye beam warper which is equipped with pneumatic cylinder for beam density control and traverse motion for comb and cross-over roll; various types of creels for cotton and synthetic yarns; new size kettle.
John Cocker III, pres.
John C. Bodansky, vice-pres.
Hoyt Cunningham, salesman
Don Shepherd, salesman
H. W. Groce, salesman
T. F. Suggs, chief engr.
J. L. Etheredge, salesman

COLE ENGINEERING CORP. 272
Fourth Ave. at Thirty-Second St.
Columbus, Ga.
Exhibiting: Grease-sealed, anti-friction top rolls; grease-sealed, anti-friction long draft conversion units; adjustable, self-lubricating saddles, adjustable spring weighting units.
C. E. Hett, Jr., sales rep.
Wilton Todd, sales rep.

COLEMAN CO., INC. 822
Greenville, S. C.
Exhibiting: Yale & Towne fork trucks, materials handling equipment; spinning frame completely rebuilt, featuring Bouligny "Tru-Draft," creels, and band-to-tape-drive conversions.
James P. Coleman, pres.
E. B. Brigham, vice-pres.
C. Y. Campbell, salesman
M. R. Hawley, salesman
Ford Harris, salesman

COLLINS BROTHERS MACHINE CO. 817
647 Roosevelt Ave.
Pawtucket, R. I.
(See Karl H. Inderfurth)

THE COLSON CORPORATION 825
Elyria, Ohio
(See Wrenn Bros.)

CONTAINER CORPORATION OF AMERICA 129
38 South Dearborn St.
Chicago 3, Ill.
Exhibiting: Folding cartons.
R. H. Dale, sales mgr.
Mrs. Maisie Wylie, mdse. consultant
C. C. Self, packaging engr.

CONTINENTAL-DIAMOND FIBER.....106
Div. of The Budd Co. Inc.
70 Chapel St.
Newark, Del.
Exhibiting: Vulcanized fibre textile receptacles (trucks, boxes, barrels, and roving cans); celoron silent gears; dilecto pot eyes, conditioning trucks, and laminated plastics; fibre and celoron loom parts.
F. M. Grauer, vice-pres.
H. M. Dexter, dir. of sales
A. H. Briggs, gen. sales mgr.
F. L. Cooper, asst. gen. sales mgr.
Olan Thomas, supv. adv.
C. L. Simmons, Jr., dist. sales mgr.
A. D. Grey, sales engr.
G. W. Vonseth, sales engr.
C. B. Haynes, sales engr.
H. M. Black, sales engr.

Aldrich Machine Works will exhibit this Schofield PreCarder for blending stocks.

COOK & CO. 835
Manchester, Ltd.
Manchester, England
(See Stellite American)

CORN PRODUCTS SALES CO. 456
17 Battery Place
New York, N. Y.
Exhibiting: Space for visitors.

A. N. McFarlane	Harmon Harris
A. A. Harden	W. R. Joyner
D. E. Linn	H. L. Bailey
J. T. Seawell	Earl G. King
J. M. Coe	Gordon E. Wood
L. H. Kelley	J. M. Adcock
Herman Baker	J. N. Hall
J. R. Hill	J. Alden Simpson

COURTAULDS (ALABAMA) INC.....356
600 Fifth Ave.
New York 20, N. Y.
Exhibiting: Coloray solution-dyed rayon staple.

W. H. Ward	J. E. Brown
T. G. Ethridge	R. Dunford

THE DANA S. COURTNEY CO.....130
Chicopee, Mass.
(See Watson & Desmond)

CROMPTON & KNOWLES CORP. 141
93 Grand St.
Worcester, Mass.
Exhibiting: An M-P automatic, bobbin-changing, dobby, cotton dress goods loom, 56" between swords, 20 harness (15/32" gauge), 4 x 1 box; an M-P automatic bobbin changing dobby convertible type, 56" between swords, 20 harness (15/32" gauge), convertible from 1 x 1 to 2 x 1 and vice versa; new 36-bobbin capacity rotary magazine equipped with vacuum control.
Frederic W. Howe, Jr., pres. and gen. mgr.
Harold R. Wing, vice-pres. and gen. sales mgr.
Albert Palmer, vice-pres. in charge of eng. and research
Joseph F. Molloy, asst. gen. sales mgr.
John C. Irvin, southern mgr.
Raymond A. Sharpe, field ser. engr.
Lewis Burgess, sales rep.
Henry C. Wingard, sales rep.

CROSS SALES AND ENGINEERING CO. 334
317 West Lee St.
Greensboro, N. C.
Exhibiting: Mechanical power transmission equipment, including a double enveloping worm gear reducer.
W. S. Cross, mgr.
J. H. Chambers, rep.
D. O. Tise, rep.

CURTIS & MARBLE MACHINE CO. 245
72 Cambridge St.
Worcester 3, Mass.
Exhibiting: The M-125 shear and brusher range for cotton and synthetic goods; pneumatic-operated rol'ing head; portable railway sewing machine.
Walter E. Hildick, pres.
Leland F. Remington, gen. supt.
Jack Federline, southern rep.
Thure Bylund, ser. man
Walter F. Woodward, vice-pres. sales

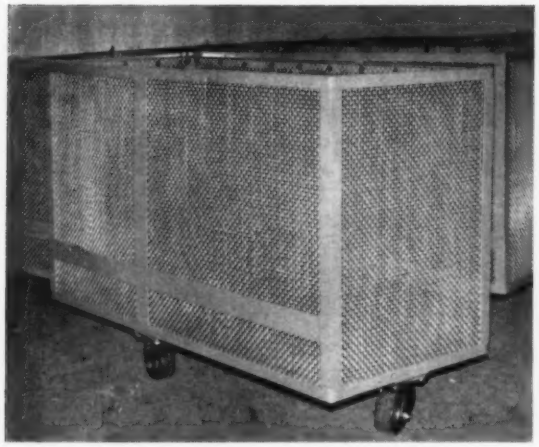
CURTISS-WRIGHT CORP. 265
1145 Galewood Dr.
Cleveland 10, Ohio
(See Marquette Metal Products)

CUTLER-HAMMER, INC. 429
315 N. 12th St.
Milwaukee, Wis.
Exhibiting: Lint-tight loom switch; card controllers; shipper rod switch; combination starters; push-button stations; safety switches.
M. R. Brice, div. mgr.
B. R. Stration, dist. mgr. Atlanta
W. L. Hampton, headquarters sales
F. L. Sherman, mgr. Birmingham
F. A. Miller, mgr. Charlotte
C. D. Capelle, Atlanta
R. H. Hanson, Atlanta

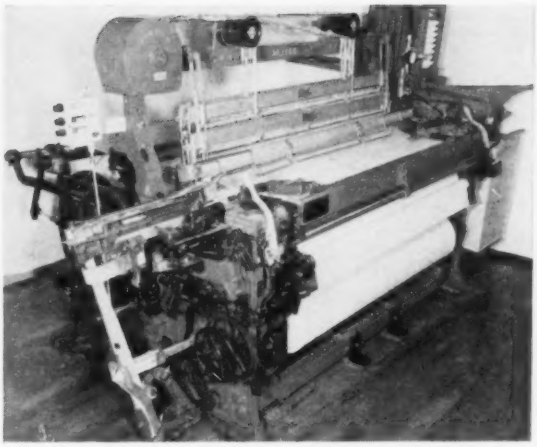
DAILY NEWS RECORD 210
(publication)
7 East 12th St.
New York 3, N. Y.

DARNELL CORP. LTD. 213
Long Beach, Calif.
(See Greenville Textile Supply)

DAVIS & FURBER MACHINE CO.....209-B
North Andover, Mass.
Exhibiting: Supplies and accessories, card clothing, tapes, aprons; "coordinated production" plan.
Louis Bussiere, spinning tech.
James Mansfield, carding tech.
E. N. Atwood, mgr. Charlotte
H. A. Newby
W. M. Truslow
J. W. Wagoner



Excel No. 3600 galvanized wire mesh transport truck with steel angle base and frame and solid hardwood bottom.



Model X-2 Draper loom with new magazine-type battery and pneumatic thread clearer. Details on p. 251.

Shadograph scales for use in laboratory and weighing dyestuffs (Exact Weight Scale Co.)

The improved Monalit yarn conditioning machine by Mona Industries.

Air operated, high vacuum, industrial cleaner to be shown by Dodenhoff.

THE DAYTON RUBBER CO. 139
Dayton, Ohio
Exhibiting: Natural and synthetic rubberized products for the textile industry, including "all-weather" cots, V-belts, finishing rolls, variable speed belts and sheaves.
J. O. Cole, div. vice-pres.

DIEHL MANUFACTURING CO. 834
Finderne Plant
Somerville, N. J.
Exhibiting: A complete line of textile motors, including new NEMA frame sizes, integral horsepower, general purpose, open (drip-proof), totally enclosed non-ventilated, and totally enclosed fan-cooled types; special purpose loom and lint-free drives, Diehl Type "BA" loom power transmitter; and a new totally-enclosed fan-cooled, self-cleaning textile motor.
E. F. Graham, dist. mgr.
A. R. Booth, sales mgr.
R. D. Ingalls, chief engr.
A. J. Murphy
James W. Wilson
Ronney J. Peterson

DIXIE BEARINGS, INC. 434
417 Dale Ave.
Knoxville, Tenn.
Exhibiting: Anti-friction bearings and unit mounts for textile machinery; Bunting bronze bearings, Owatonna bearing removal tools, nylon bearing material, and Victor oil seals.
E. F. Brown, vice-pres.
H. L. Cox, branch mgr.
Larry Lammers, branch mgr.
Julian Phelps, branch mgr.
Lee Graham
Jimmy Lindsey
G. C. Rhodes
Paul J. Tannery
Bill Compton
Jim Yow
Alton Pope
Lewis Disney
Jim Harper
Bill Espieg
Wilbur Effler

DIXIE LEATHER CORP. 507
Albany, Ga.
(See Graton & Knight)

DIXON CORP. 465
Bristol, R. I.
Exhibiting: The new "Super Saddle Guide" which eliminates all oil and all cap bars from the top rolls of spinning frames; a bobbin holder for umbrella creels.
Robert R. Miller, pres.
William R. Potter, vice-pres.
John A. Crowe, sales mgr.
Warner Tabor, ch. engr.
(See also R. E. L. Holt)

THE DOBECKMUN CO. 202
3301 Monroe Ave.
Cleveland, Ohio
Exhibiting: Lurex non-tarnishing metallic yarns; American and European fabrics containing these yarns.
Arthur Gould, sales mgr. Lurex div.
James Griggs
David de Roode
Richard Hershberger
George Todd
Leon Seidel
Philip Nathanson

W. D. DODENHOFF CO., INC. 601
745 Lowndes Hill Rd.
Greenville, S. C.
Exhibiting: Fiber Meter blending system with automatic mixing chamber; Augusta fiber suction system for spinning frames; Twin-Beam thread illuminator for spinning frames; hydraulic Checkmaster for looms; non-electric portable industrial vacuum cleaner; Mathews conveyor system; Chainveyor overhead conveyors; Allis-Chalmers lift trucks; Agastat timing controls; constant card stripper; fiber glass trucks and boxes.
W. F. Leinweber, pres.

Dodenhoff continued
A. V. Moody, vice-pres.
Carl Baker, vice-pres.
J. C. Whitehurst, rep.
H. P. Worth, rep.
W. W Jordan, rep.

DODGE MANUFACTURING CORP. 106-A
South Union St.
Mishawaka, Ind.
Exhibiting: Flexidyne dry fluid card drive; variable speed drive for spinning frames; Taper-Lock sheaves, sprockets, and shaft couplings; Torque-Arm shaft mounted speed reducers; pillow blocks, including Dodge-Timken roller and ball bearings.
George Wooley, dist. sales mgr.
Paul Keb, sales rep.
Reynolds Barker

DRAPER CORPORATION 134
Hopedale, Mass.
Exhibiting: 50" X-2 model loom with linkage parallel assembly, new high roll ratchet take-up (double roll), and new magazine-type battery with pneumatic thread clearer; 50" X-2 model loom with linkage parallel assembly, new high roll ratchet take-up (double roll), and conventional rotary-type battery with new pneumatic thread clearer; 82" XP-2 model loom for high-speed weaving of wide sheeting; shuttles; bobbins, rings, anti-friction spindles; new and improved mechanisms.
T. H. West, pres.
W. K. Child, vice-pres.
F. M. Fitzgerald, dir. res.
J. B. Jackson, chief engr.
W. E. Soderberg, ass't. vice-pres.
J. H. Grant, adv. mgr.
Edward Cranshaw, engr. staff
Richard Childs, engr. staff
Continued next page

Draper Corp. continued
Albert Laferte
J. M. Budzyna
E. T. Austin
J. M. Tuten
W. E. Turner
F. B. Elsmore
F. A. Ridenour
M. E. Hurst
W. M. Mitchell, vice-pres.
A. W. Kilgore, div. mgr.
J. D. Marshall, div. mgr.
J. C. Huff, Jr., div. mgr.
W. M. Brice, Jr.
C. H. Draper, Jr.
Q. S. Halliday
B. Z. Ruff
W. W. Baldwin
T. W. Taylor
Nathan Bettis
S. A. Merchant
J. R. Smart
G. C. McGuire
P. A. Wilson
C. H. Lapworth

THE DRESCO CO. 340
East Weymouth, Mass.
(See Oliver D. Landis)

T. M. DUCHE & SONS, INC. 501
117 Hudson St.
New York 13, N. Y.
(See Ira L. Griffin)

DU PONT FINISHES 806
E. I. Du Pont de Nemours & Company, Inc.
Wilmington, Del.
Exhibiting: Heavy duty floor sealer; floor finish; maintenance whites.
H. L. Norton, field mgr. maintenance sales
B. G. Warwick, field rep.
W. K. Sandefur, field rep.
G. M. Drake, field rep.
V. D. Caldwell, regional sales prom. supv.

DURANT MFG. CO. 110-B
1929 N. Buffum St.
Milwaukee 1, Wis.
(See Barker Instrument & Machine)

EDDA INTERNATIONAL CORP. 503
468 Fourth Ave.
New York 16, N. Y.
Exhibiting: Titan warp tying-in machine; Titan selector; Excelsior reed cleaning and polishing machine.
B. Gudjonsson
H. A. Nagel
H. H. Thacker

ENGINEERED PLASTICS INC. 270
Gibsonville, N. C.
Exhibiting: Precision bobbins and spools; caps; tubes; anti-static rollers; plastic machinery parts; textile specialties.
D. M. Davidson, Jr., pres.
C. H. Phillips, sales engr.
Elmo Jones, sales engr.

ENGINEERING SALES CO. 508-B
123 West 29th St.
Charlotte, N. C.
Exhibiting: Hand trucks; barrel truck; lap truck; cloth baling press truck; glass fiber box truck; cotton truck.
Jack Abelson
S. R. Brookshire
V. G. Brookshire
A. B. Little

ERNST JACOBI 601
Augsburg, Germany
(See W. D. Dodenhoff)

THE EXACT WEIGHT SCALE CO. 209-A
944 West Fifth Ave.
Columbus 8, Ohio
Exhibiting: Predetermined weight scales for check-weighing, quality control, mixing of dyestuffs, micronaire testing, weighing cans of sliver, sliver testing by weight, and direct reading yarn count scales.
E. A. LeVay, Dixie sales mgr.
Jose Orta, salesman
J. E. Perkins, southern dist. sales mgr.
B. L. Price, sa esman
T. L. Brewer, salesman

EXCEL TEXTILE SUPPLY CO. 231
509 Lee Ave.
Lincolnton, N. C.
Exhibiting: Excel No. 1000 vulcanized fibre truck; No. 600 slatted maple truck; No. 900 aluminum conditioning truck; No. 3000 floating bottom creel truck; No. 3600 wire mesh transport truck; No. 100 fibre tote box.
N. W. Eurey, vice-pres.
Paul Eurey, rep.
C. W. Eurey, mgr.

FABBRICHE ELETTROTECNICHE 835
Riunite
Milan, Italy
(See Stellite American)

FAIRBANKS, MORSE & CO. 102
Chicago 5, Ill.

FAULTLESS CASTER CORP. 366
1521 North Garvin
Evansville 7, Ind.
Exhibiting: A new line of grease-sealed casters; swivel and rigid casters; thread guards; cushion and hard tread wheels.
R. A. Madson, sales rep.
J. Couch, sales rep.
J. W. Allen, sales dept.

FENWAL, INC. 360
Ashland, Mass.
(See W. K. Hile)

FINNELL SYSTEM, INC. 110
500 East St.
Elkhart, Ind.
Exhibiting: Floor polishing and scrubbing machines; protective floor finishes; waxes; soaps and cleansers; steel wool pads.
James E. Bates, vice-pres.
H. H. Dickson, dist. mgr.
John T. Core, dist. mgr.
John Savard, dist. mgr.
L. A. Arnold, dist. mgr.
Robert M. Bliss, sales rep.

FISHER MANUFACTURING CO. 314
North Elbert St.
Hartwell, Ga.
Exhibiting: Roving handling equipment with floating bottoms; troughs for Barber-Colman spoolers; trucks for Barber-Colman and Abbott cheeses; and a combination doff truck.
J. Glenn Fisher, sales mgr.
James N. Fisher, prod. mgr.
Robert M. Matthews, asst. plant mgr.

FOSTER MACHINE CO. 235
Westfield, Mass.
Exhibiting: The Foster-Muschamp Model 66 automatic filling winder—both a pinboarding attachment and filling box stacker will be operating.
W. C. Chisholm, pres. and treas.
E. C. Connor, vice-pres. and sales mgr.
H. W. Ball, chief engr.
P. H. Farmer, asst. sales mgr.
S. A. Burke, engr.
E. P. Dodge, southern mgr.
G. W. Mallory, salesman
E. H. Ely, salesman

THE FOXBORO COMPANY 440
Foxboro, Mass.
Exhibiting: For pressure dyeing machines a cabinet-mounted control system with Cycle-Log Controller to carry out the dyeing temperature schedule, a pressure or flow controller with reversing control for dye liquor flow, etc.; the Multi-Record Dynalog recorder which provides up to six continuous records on a single chart; Model 12A temperature transmitter; 13A differential pressure cell transmitter; 14A flyball integrator; and measuring elements such as a dew point unit, O-R potential electrode (Redox), pH electrode, and conductivity cell.
Forest Leathers, sales engr.
Louis Estes, sales engr.
Wade Rhyne, sales engr.
Thomas Jones, sales engr.
Samuel Alexander, branch mgr.
W. W. Barron, branch mgr.
Walter Ridley

THE FULLER BRUSH CO. 438
Fuller Park
Hartford 15, Conn.
Exhibiting: Brushes and brooms of all types for the textile industry, including power-driven brushes for cards and other applications.
J. L. Harding, eastern dist. indus. sales supv.
John C. Henry, S. C. ind. rep.
Frank P. White, N. C. ind. rep.
Edward W. Mason, Ga. ind. rep.

GARLAND MFG. CO. 423
Water St.
Saco, Maine
Exhibiting: Rawhide loom pickers, mallets, faced hammers; picker rod lubricant, picker rod bunters, picker stick bunters; leather check straps.
Frederick L. O'Neil, Sr., sales
Frederick L. O'Neil, Jr., sales
Harry P. Garland, pres.
L. S. Garland, treas.
Peter A. Garland, asst. treas. and sec.

GASTON COUNTY DYEING MACHINE CO. 811
Stanley, N. C.
Exhibiting: Laboratory and small lot dyeing machines; extracting and drying equipment; autoclaves for textile processing.
G. H. Hacker
R. P. Craig
Gordon Hacker

THE GATES RUBBER CO. 419
999 South Broadway
Denver 17, Colo.
Exhibiting: Spinning frame drive; loom accessories, including pickers, lug straps, harness strapping, Multi-Check straps, and take-up roll coverings.
Robert O. Denslow, mkt. supv.
George Heikes, appl. and design engr.
J. L. Wescott, dist. mgr.
Frank R. Carson, field engr.
W. H. Hunter, field engr.
Harry W. Haynes, field engr.
D. J. Broadhurst, field engr.
E. B. Strong, field engr.
T. C. Jannett, field engr.

P. C. GAULT CO. 354
2 Aberdeen Drive
Greenville, S. C.
Exhibiting: Kellogg Select-O-Phone, an automatic private dial intercommunication system offering 100% trunkage, voice and/or signal paging, conference, centralized dictation, and low maintenance cost; Transvox, a wireless voice or signal paging system; DuKane sound, paging, and intercom systems.
P. C. Gault, pres.
James C. Digh, sales mgr.
James E. Marshall, instal. and ser. mgr.
John A. Meyers, dlr. sales supv. Kellogg Switchboard and Supply Co.

GENERAL ELECTRIC CO. 117
Schenectady 5, N. Y.
Exhibiting: A complete line of textile motors, both a-c and d-c, and their associated controls; a G-E recording spectrophotometer; and miscellaneous products for use in textile mills.
R. C. Mix
Ira S. Meckly
C. J. Ossenfort

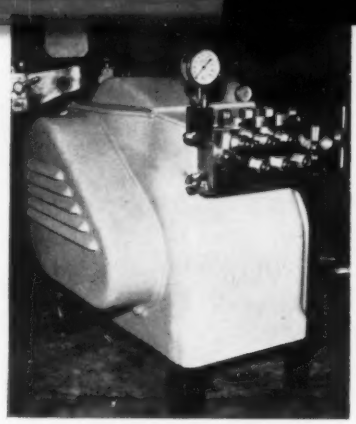
GEORGIA-CAROLINA OIL CO. 329
1403 Sixth St.
Macon, Ga.
Exhibiting: Complete line of textile lubricants.
H. E. Coggin, sales mgr.
B. N. Coggin, rep.
G. W. Dobbins, rep.

GILMAN PAINT & VARNISH CO.....426
Chattanooga 1, Tenn.
(See Olney Paint Co.)

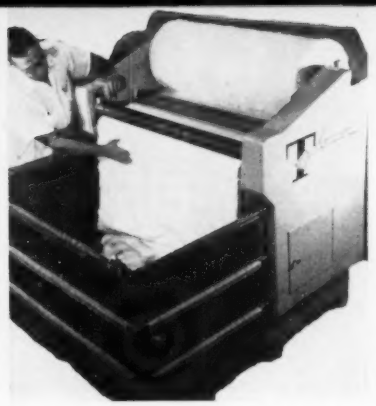
CLAIR H. GINGHER & SON 302
3801 East Bessemer Ave.
Greensboro, N. C.
Exhibiting: Magnifying equipment; burling tools and cloth pickers; needles; scissors and shears.
C. H. Gingher, owner
W. A. Wallace, Jr., rep.
J. W. Davis, rep.
Frank C. Feustel, rep.
Dale Kiser, home office

GODO SHUTTLE CO. 362
Osaka, Japan
(See Edward S. Rudnick)

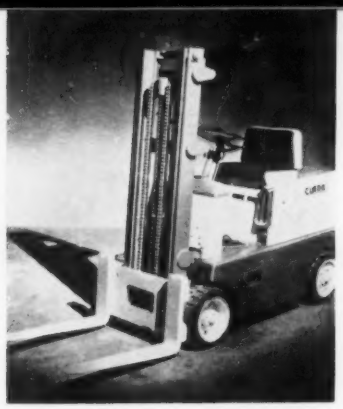
GOSSETT MACHINE WORKS, INC. 233
2023 W. Franklin Ave.
Gastonia, N. C.
Exhibiting: Card coilers, plates, fancies, feed rolls, mote knives; drawing coilers



The Manton-Gaulin Model 400 GPH homogenizer for textile mill use.

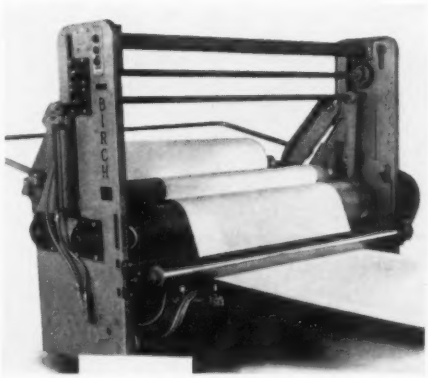


New Thomason electronic lap tester which measures both short- and long-term variation.

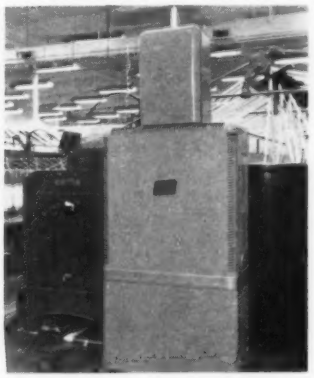


Clark Equipment Co.'s new Clarklift line of lift trucks will be exhibited.

Stanley Work's Magic Door Division will show electrically operated doors.



Birch Brothers' automatic cut-off winder, Model 5, for wet processing applications.



The Pneumastop apparatus for roving frames may be seen in Pnaumafil booth.

and conversions; drawing frame parts; spinning and twister spindles.
B. W. Gossett, pres. and mgr.
E. C. Mason, sales mgr.
D. W. Smith, sales rep.
R. T. Oates, asst. mgr.
H. A. Cauthen, Jr.

GOWER MFG. CO. 506
129 River St.
Greenville, S. C.
Exhibiting: Automatic equipment for stacking bobbins in doff boxes; conveyors for handling bobbins from spooler room to spinning room.
R. Hunter Park, mgr. and vice-pres.
T. Chas. Gower, pres.

GRATON & KNIGHT CO. 507
Worcester, Mass.
Exhibiting: Flat leather belting for power transmission, and textile leathers for looms and carding machinery.
John G. Henrikson, sales mgr.
William S. Johnstone, sales rep.
Woodley F. McAnu'ty, sales rep.
Jackson L. Parker, adv. mgr.
Edward Pickett, Jr., dist. mgr.

GREENVILLE TEXTILE SUPPLY CO......213
504 Rhett Street
Greenville, S. C.
Exhibiting: Products of Bowen Hunter Bobbin Co.; Darnell Corp.; Hope Webbing Co.; W. T. Lane & Bros., Inc.; Lestershire Spool Div., National Vulcanized Fibre Co.; Pioneer Loom & Reed Co.; Sunray Co.

H. Z. Graham	James Poston
Marion Woods	T. M. Bailey
C. Q. Mason	W. L. Brigham
J. T. Mason	E. W. Ware

IRA L. GRIFFIN & SONS.....501
1429 Bryant St.
Charlotte, N. C.
Exhibiting: Uxbridge Model A slasher dryer; two Griffin size applicators operating in tandem; a slasher front end; Hubinger Co. products, including starches and Waxyfilm No. 75; Atlantic gelatin.
Ira L. Griffin, Sr., partner

Griffin continued
Ira L. Griffin, Jr., partner
William A. Griffin, partner
G. E. Orr
G. R. Underwood, Hubinger Co.
J. M. Seitz, Hubinger Co.
J. R. Myers, Hubinger Co.
Carl Merritt, Hubinger Co.
J. E. Boyle, Hubinger Co.
Max Seitz, Hubinger Co.
Lee Elizer, Hubinger Co.

GULF OIL CORP......211
Gulf Bldg.
Pittsburgh 19, Pa.
Exhibiting: Textile mill lubricants, including oils for spindles and needles.
J. H. Hooten, super. of prod. appl.
A. M. Wright, prod. appl. engr.
J. E. Coleman, prod. appl. engr.
H. B. Minick, Jr., staff sales engr.
C. L. Thomas, Jr., staff sales engr.
R. G. Burkha ter, Sr., sales engr.
R. G. Burkhalter, Jr., sales engr.
J. J. Bacon, sales engr.
G. W. Burkhalter, sales engr.
J. E. Lanier, sales engr.
D. C. Austin, sales engr.
C. T. Timmons, sales engr.
S. E. Owen, Jr., sales engr.
C. J. Cason, sales engr.
L. A. Bethea, sales engr.
L. T. Daughtridge, Jr. sales engr.
S. W. Dance, sales engr.
W. T. Musgrove, sales engr.

HARTFORD MACHINE SCREW CO. 602
Hartford 2, Conn.
Exhibiting: Ball bearing spinning spindles, including a new one featuring a sturdy brake integral with the split base; positive latch bobbin hanger; a new drafting system.
A. Raymond Andrews, sales mgr.
A. E. Winslow, mgr. southern div.
W. B. Martin, sales engr.
A. M. Newell, sales engr.
N. D. Kennedy, prod. engr.
L. K. Dodd, sales engr.
William Snowden, sales engr.

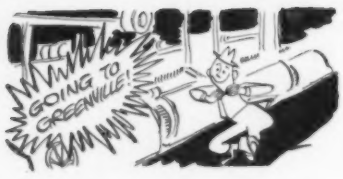
HAYES INDUSTRIES, INC. ....Annex #6
Wildwood & Fern Ave.
Jackson, Mich.
Exhibiting: Cost saving types of textile beams, including a giant size aluminum section beam for cotton mills which is dynamically balanced for vibrationless operation and better production.
Wm. H. Maxson, sales mgr.
Warren D. Sharp, textile engr.
(See also Yeomans Textile Machinery)

HEANY INDUSTRIAL CERAMIC CORP. 313
P. O. Box 520
New Haven, Conn.
Exhibiting: Wear-resistant ceramic thread guides; Carroll redraw tension gate finger tensions.
R. L. Carroll, rep. engr.
Ralph Gossett, Jr., southern rep.
A. O. Pieper, pres.

HERR MANUFACTURING CO., INC. 268
318-320 Franklin St.
Buffalo 2, N. Y.
Exhibiting: Flyers; conical rings for spinning and twisting; conical ring for carpet, woolen, and tufted yarns.
Hyatt B. Atwood, pres.
William W. Woodward, tech. engr.
Robert M. Leach, tech. engr.
James McLean

W. K. HILE 360
P. O. Box 6165
Charlotte 7, N. C.
Exhibiting: Fenwal automatic temperature contro's; Hotwatt electric heating elements; Sta-Warm electric heated tanks for compounds, waxes, and glue.
W. K. Hile
J. M. Lancaster, engr. Fenwall, Inc.
H. S. Lee, pres. Hotwatt, Inc.

HILLYARD CHEMICAL CO. 304
St Joseph, Mo.
Exhibiting: A complete line of floor seals and finishes as well as floor cleaners and conditioning materials; non-inflammable



paint and varnish remover which eliminates necessity for sanding of floors; "Colortone" pigmented floor finish for painted floor areas.
Wm. A. Schmaltz, sales mgr.

HOLLISTER-MORELAND CO., INC....234
1455 Asheville Highway
Spartanburg, S. C.
Exhibiting: Merrow Style M sewing machine with automatic oiling, butt seaming machines, and shell stitch machines; Dinsmore railway for butt seaming; American Safety Table Co. motor stands.
R. B. Moreland, pres.
O. S. Bachelor
J. B. Moreland
Lane C. Burris
Warren G. Martin, Jr.
Bob Pettit, American Safety Table Co.
Harry Duke, pres. Dinsmore Mfg. Co.
Jack Washburn, Merrow Mach. Co.
Bill Baker, Merrow Mach. Co.

R. E. L. HOLT, JR. & ASSOCIATES, INC. 465
P. O. Box 1319
Greensboro, N. C.
Exhibiting: Twister spools by Akron Spool & Mfg. Co.; nylon spinning and twister tapes by Burlington Narrow Fabrics Co.; saddle guides and bobbin holders by Dixon Corp., including the new "Super Saddle Guide" which eliminates all oil and all cap bars from the top rolls of spinning frames; porcelain guides and wire guides by Mitchell-Bissell; picker sticks, shuttles, skewers, and other wood parts by Norris Bros.; wire core dobby cords, canvas lugs, chain bars, and dobby pegs by Rice Dobby Chain Co.; opossum shuttle fur and sheepskin items by B. Snowiss Fur Co.; loom and warp bobbins by Stedco Southern; twister belts, conveyor belts, card belts, and loom strapping by Ton-Tex Corp.
R. E. L. Holt, Jr.
Floyd A. New
D. R. Sellars
J. G. Skinner
Brad Dunson
Cecil McAbee
J. B. Hawley, Akron Spool
H. McFatridge, Akron Spool
Jack Mitchell, Mitchell-Bissell
W. F. Fuetterer, Mitchell-Bissell
David Norris, Norris Bros.
Ben Snowiss, B. Snowiss Fur
T. A. Lombardi, Ton-Tex
J. S. Meyers, Ton-Tex

HOPE WEBBING CO. 213
Providence, R. I.
(See Greenville Textile Supply)

HOTWATT, INC. 360
16 Gould St.
Danvers, Mass.
(See W. K. Hile)

HOWARD BROS. MFG. CO. 252
44-46 Vine Street
Worcester 8, Mass.
Exhibiting: Card clothing for woolen, worsted, cotton, asbestos, and silk cards; napper clothing, brush clothing; hand stripping and sampling cards.
Harry C. Coley — Eugene V. Cail'e
Neal Mitchell — E. Jack Lawrence
Arnold W. Englund — T. J. Jackson
Charles A. Haynes — Harold Suggs

THE HUBINGER CO. 501
601 Main St.
Keokuk, Iowa
(See Ira L. Griffin)

WILSON F. HURLEY 229-A
Box 1443
Greenville, S. C.
Exhibiting: M-B pneumatic roll pickers, air line filters, pressure regulators, and lubricators; Warren leather transmission belts; Bancroft leather loom strapping; Parks bobbins and spools.
W. F. Hurley
R. C. Hurley
J. W. Davis, mfr's. agt.

HYATT BEARINGS DIVISION.....104
General Motors Corp.
Harrison, N. J.
Exhibiting: Bearings of all types and sizes, with emphasis on those available to improve performance of existing looms.
J. R. Gilmartin, gen. sales mgr.
E. P. O'Neill, mgr. Harrison sales
C. C. Wardell, adv. mgr.
G. B. Baxley, sales engr.
P. H. Hutchinson, sales engr.
J. Lee, sales engr.
E. Maurushat, div. engr.

HYSTER CO. 825
Danville, Ill.
Exhibiting: Hyster lift trucks and cotton and textile handling attachments, including a new electronic cotton weighing device for lift trucks, the standard Load-Grab, side-shift Load-Grab, and revolving Load-Grab.
Walter A. St. Clair, asst. sales mgr.
James N. Rector, SE dist. mgr.
(See also Wrenn Bros.)

IDEAL INDUSTRIES, INC.....239
Ideal Machine Shops, Inc.
Bessemer City, N. C.
Exhibiting: A new four-delivery 18" gauge drawing frame with all latest improvements including Bahnson cleaning system; ball bearing coiler system; hardened and ground lifting rods and bushings; finishes for flyers; drop pressers and hardened worsted pressers; case hardened card room spindles; rebushed steps and bolsters; new and repaired spinning and twister spindles; new and repaired top arbor rolls.
Frank McDonald, engr.
Sherwood Livingston, engr.
Arthur Rayfield, ser. engr.
Albert S. Roebuck, sales engr.
John Long, Jr., salesman
Jim Rayfield, salesman
Morgan Ruppe, salesman
Joe Whitehurst, plant engr.
E. B. Robinson, vice-pres.
Elvin F. Robinson, asst. sales mgr.

KARL H. INDERFURTH.....817
P. O. Box 6161
Charlotte 7, N. C.
Exhibiting: Lindly automatic fabric inspector for inspecting, marking, and recording defects in grey and finished fabrics; Lindly automatic yarn inspector for detecting yarn defects such as slubs, broken filaments, puff-balls, etc., on production basis; Lindly roving break detector; Lindly statistical recorder for recording machine downtime on 40 machines simultaneously; the Lindly photo scanner for detecting stoppage on all types of warp knitting equipment; Collins C/B big ring twister for large package spinning of cotton, tire cord, and glass yarns.
Karl H. Inderfurth
Hayden C. Cobb, Jr.
Walter R. Geier
Howard Linderman, Lindly & Co.
Vincent Lynch, Lindly & Co.
Daniel Mindheim, Lindly & Co.
Tom Fox, Lindly & Co.
Henry Collins, Collins Bros.

INDUSTRIALAIRE CO. 311
1600 Hutchison Ave.
Charlotte, N. C.

INDUSTRIAL COATINGS, INC. 319
104 S. Hudson St.
Greenville, S. C.
Exhibiting: "Teflon" coated items used in the textile industry.
H. E. "Pete" Russell, mgr.

THE INDUSTRIAL DRYER CORP.....110-A
432 Fairfield Ave.
P. O. Box 850
Stamford, Conn.
Exhibiting: Conditioner for cotton knitting yarn.
Philip H. Friend, southern rep.
F. W. Caesar

INTERNATIONAL BUSINESS MACHINES CORP. 802
590 Madison Ave.
New York 22, N. Y.

INTERNATIONAL CORRESPONDENCE SCHOOLS 336
1001 Wyoming Ave.
Scranton 9, Pa.
Exhibiting: Brochures and outlines of various training programs, including leadership training, management development, and technical training for the textile industry; latest texts utilized for these programs.
U. E. Akins, dept. dir.
Raymond Gagnon, dir. school of textiles
Harry Kraft, training spec.
W. F. Eckard, div. supt.
W. R. Craig, div. supt.
Roy Stone, div. supt.
D. D. Phelps, div. supt.
Geo. McClenaghan, dist. rep.
John Stearns, dist. rep.
Cyril Rearden, dist. rep.
Ben Sligh, dist. rep.
Ed. Green, dist. rep.
Bill Brown, ind. salesman
Charlie Carperter, dist. rep.
Glenn Williams, dist. rep.
Ed. Lail, dist. rep.
James Ely, dist. rep.
Walter Godfrey, dist. rep.

INTERNATIONAL TEXTILE MACHINE CO. 215
403 North Tryon St.
Charlotte, N. C.

IZUMI BOBBIN CO. 362
Osaka, Japan
(See Edward S. Rudnick)

JENKINS BROS. 432
100 Park Ave.
New York 17, N. Y.
Exhibiting: The Jenkins lines of bronze, iron, cast steel, and stainless steel valves, and featuring stainless steel valves.
E. C. Barrett, mgr. — L. B. McClary
E. L. Dean — W. A. Snellgrove
L. M. Leaptrott

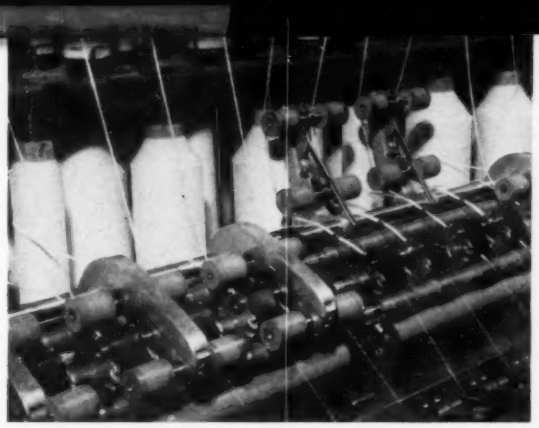
THE JOHNSON CORP. 459
Three Rivers, Mich.
Exhibiting: Type "SBP" Type "SB2P," and Type "SDP" self-supporting rotary pressure joints with assembly plates and syphon elbows; Type "LJSP" (rod supported) rotary pressure joint with assembly plate and Johnson syphon elbow; instant steam water heater; compressed air separators and aftercoolers; and solenoid operated valves.
R. W. Gotschall, gen. sales mgr.
T. O. Monroe, reg. sales mgr.
H. M. Duvall, Jr. — A. B. Shepherd
J. Q. Marshall — A. T. Shepherd
W. T. Harding, Jr. — D. H. Skinner
L. A. Watts, Jr. — W. P. Terry
W. E. Gagaman — T. H. Abbey

A. B. KARDBESLAG 340
Norrkoping, Sweden
(See Oliver D. Landis)

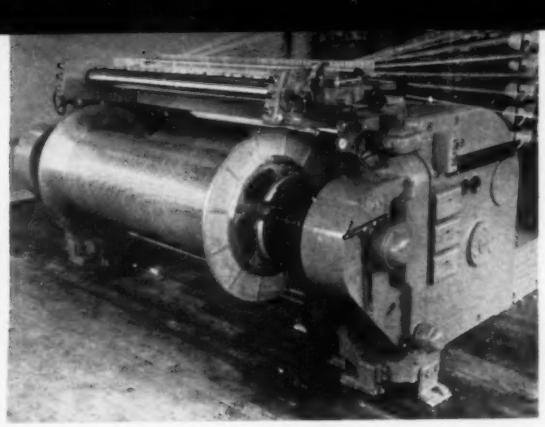
THE KEEVER STARCH CO. 407
538 East Town St.
Columbus 15, Ohio
Exhibiting: Space for visitors.
James F. Kurtz, vice-pres.
A. S. Fulford, sec.
Chas. C. Switzer, vice-pres.
F. M. Wallace, asst. mgr.
R. F. Guill, rep.
C. B. Phillips, rep.
Sam S. Rice, rep.

KEYSTONE LUBRICATING CO. 402
21st, Clearfield & Lippincott Sts.
Philadelphia 32, Pa.
Exhibiting: Lubricants for all textile machinery; colorless lubricant for centralized greasing system for twister rings; cartridged open gear grease.
B. N. Melsom, asst. sales mgr.
R. J. McGee, exec. rep.
R. M. Goss, factory rep.
N. W. Benjamin, factory rep.
Wm. F. Boger, factory rep.

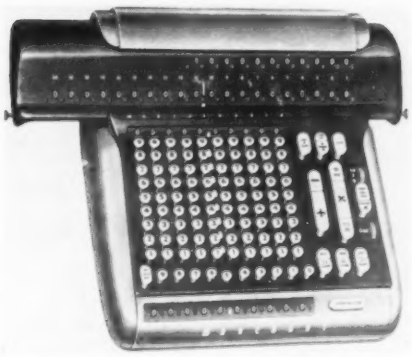
KIDDE MANUFACTURING CO., INC. 515
35 Farrand St.
Bloomfield, N. J.
Exhibiting: The Kidde-Sipp 54" beamer for all yarns with precise control of pressure roll and semi-automatic beam doffing; tension devices for all textile operations, including a new model for use with spun yarns (both natural and synthetic); Kidde-Sipp tension measuring devices in all ranges, including the new Slasher Tensometer.
W. J. Behr, Jr., vice-pres.
H. W. Ruddick, asst. vice-pres.
E. I. Herbert
O. C. Beagle
D. I. Friday, southern mgr.
J. H. Fleming
F. H. Muller



A new anti-friction top roll assembly for spinning frames made by Norlander-Young Machine Co.

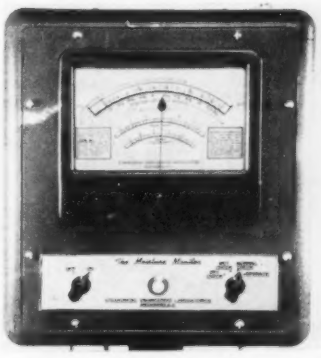


The Model SD-54 dye beam warper will be on display in Cocker Machine & Foundry Co.'s booth.



The Marchant "Deci-Magic" calculator with completely automatic decimals.

One of the many types of revolving joints made by Rotherm Engineering.



The "Moisture Monitor" for pickers is to be featured by Strandberg Engineering.

KIRKMAN & DIXON MACHINERY CO. 242
Oak Ave.
Greenwood, S. C.
Exhibiting: Single cylinder waste machine and hopper feeder; laboratory waste machine; SRRL fiber opener; a new draft roller cleaner.
Ira W. Dixon, pres.
C. M. Dixon, prod. dept.
W. J. Langley, salesman

LAMBETH ROPE CORP. 223
Kings Mountain, N. C.
Exhib.ting: narrow fabrics and specialty products.
J. P. O'Leary, sales mgr.
A. L. O'Leary, Jr., pres.
Frank Burke, mgr. Kings Mt. plant

OLIVER D. LANDIS, INC. 340
718 Queens Rd.
Charlotte, N. C.
Exhibiting: Nylon spinning tape; cotton tape; nylon tape bonding machine; card clothing; spinning rings; check straps; endless woven card belts and bands; steel picker rods for pneumatic roll pickers; solid woven harness strapping.
Oliver D. Landis
Fred E. Antley
V. Peter Loftis
Miss Elaine Skipper
John Ferguson

W. T. LANE BROS., INC. 213
Poughkeepsie, N. Y.
(See Greenville Textile Supply)

LESTERSHIRE SPOOL DIVISION.....213
National Vulcanized Fibre Co.
Johnson City, N. Y.
Exhibiting: A complete line of spools and bobbins and featuring the all-aluminum take-up bobbin (with and without magazine feature), and the ring twister bobbin.
Samuel Sinclair, sales mgr.
L. W. Phelps, plant mgr.
G. M. Lang, adv.-prom. dept.
(See also Greenville Textile Supply)

LINCOLN ENGINEERING CO. 509
4010 Goodfellow
St Louis 20, Mo.
Exhibiting: Centralized lubrication systems, featuring individual control.
J. Jenkins, ind. sales mgr.
J. Benskin, asst. ind. sales mgr.
A. T. Laspe, asst. chief engr.
R. C. Doss, rep.
E. V. Byington, rep.

LINDE AIR PRODUCTS CO.....335-A
Division of Union Carbide and Carbon Corp.
30 E. 42nd St.
New York, N. Y.
Exhibiting: Synthetic sapphire guides for spinning and throwing synthetic yarns; Linde type A and type B Alumina polishing powder for polishing spinnerettes.
A. K. Sherman
I. Brown, Jr.

LINDLY INSTRUMENT & MACHINE CO. 817
Mineola, N. Y.
(See Karl H. Inderfurth)

H. F. LIVERMORE CORP. 109-A
Boston 34, Mass.
Exhibiting: Improved loom parts.
Chester Hammond, pres.
Ernest W. Fanning, southern sales mgr.
H. W. Black
W. T. Jordan, salesman
F. T. Harvell
J. B. Kilpatrick
J. G. Phillips, asst. to pres.
L. G. Urquhart, chief engr.
T. H. MacLeod, adv. mgr.

LIVINGSTONE COATING CORP. 303
709 W. Third St.
Charlotte 8, N. C.
Exhibiting: Corrosion resistant coatings, materials, and linings, including Teflon coating, Teflon Armalon coated glass fabrics, and solid Teflon materials.
J. S. Livingstone, pres.
B. J. Livingstone, sec.
A. B. Small, mgr.

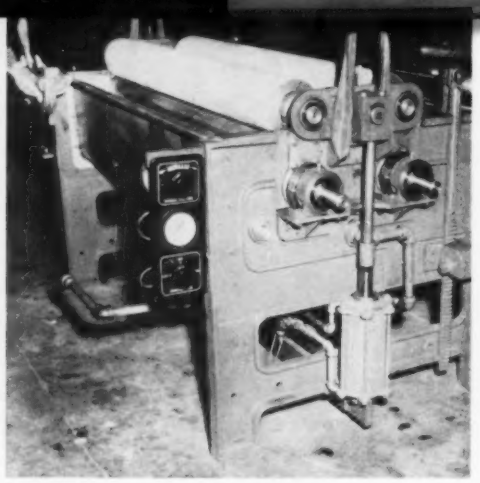
THE LOUDEN MACHINERY CO. 126
Fairfield, Iowa
Exhibiting: Monorail and crane equipment; loom cleaner; ceiling cleaner.
T. J. Pollard, southern mgr.
Wilbur Mayer, sales mgr.
A. M. Rinehart, asst. sales mgr.
Brice Gamble, adv. mgr.

MACBETH CORP. 113
Newburgh, N. Y.
Exhibiting: Industrial model color matching lamp; booth for visual color matching; color aptitude and color blindness testing apparatus.
W. B. Reese, vice-pres.
R. E. Meeker, sales mgr.
E. F. Slaughter, rep.
P. H. Slaughter, rep.

McDONOUGH POWER EQUIPMENT, INC. 321
McDonough, Ga.
Exhibiting: Universal card coiler for all makes of cards.
J. L. Sinback, vice-pres. and gen. mgr.
H. P. Jackson, engr.
F. C. Steele, asst. sec. and treas.
W. N. Watkins, sales rep.
T. M. VanLandingham, sales rep.
W. A. Wallace, agent

MANTON-GAULIN MANUFACTURING CO., INC. 504
44 Garden St.
Everett 49, Mass.
Exhibiting: 400 gph, Model K textile

Ideal Industries' new four-delivery, 18" gauge drawing frame with Bahnson cleaning and other improvements.



West Point Foundry & Machine Co. will show its standard size box with pneumatic load and lift device.

homogenizer: automatic recording pressure controller; 2" colloid mill.
D. G. Colony, pres.
G. W. Eldridge, ind. sales mgr.
J. J. Dwyer, asst. ind. sales mgr.
W. A. Hewitt, southe n textile sales mgr.
L. H. Rees, research dir.

MARCHANT CALCULATORS, INC...347
1475 Powell St.
Oakland 8, Calif.
Exhibiting: "Deci-Magic" calculator with completely automatic decimals; "Twin-Set" Figurematic; "RX" Rapid Multiplier.
Alton T. Davis, area dir.
R. B. Pollock, agency mgr.

MARQUETTE METAL PRODUCTS CO. 265
Div. of Curtiss-Wright Corp.
1145 Galewood Drive
Cleveland, Ohio
Exhibiting: Anti-friction type cotton spindles (warp and filling); throwing spindles; brake spindles for twisting (with external and internal brakes).
Fred E. Harrell, gen. mgr.
C. S. Sikes, asst. prod. mgr.
C. H. White, rep.
R. M. Turner, rep.
C. E. Miller, sales mgr.
W. P. Russell, rep.

MARSH STENCIL MACHINE CO. 349
707 East B. Street
Belleville, Ill.
Exhibiting: Stencil cutting machines, hand operated and electric; fountain brushes, stencil inks, stencil supplies; electric tape machines, Dial-Taper and Twin-Taper.
Herbert W. Hempel, vice-pres.
E. J. Marsh, sec.
Jack Krause, asst. sales mgr.

MARSHALL & WILLIAMS CORP. 262
46 Baker St.
Providence, R. I.
Exhibiting: Tenterette; constant tension center winder; selvage uncurler; swivel let-off stand; tenter clips; pin plates.
Richmond Viall, pres.
John C. Nash, vice-pres.
Fred H. Land, gen. mgr.
James A. Love, sales engr.
E. E. Ford, sales engr.
Albert J. Marshall, sales engr.
Wil iam Brown, sales engr.

MATHEWS CONVEYOR CO. 601
Ellwood City, Pa.
(See W. D. Dodenhoff)

M-B PRODUCTS 229-A
46 Victor Ave.
Detroit 3, Mich.
Exhibiting: Pneumatic roll pickers; air line filters, regulators, and lubricators.
I. Manheimer, pres.
(Also see Wilson F. Hurley)

MERROW MACHINE CO. 234
Hartford, Conn.
(See Hollister-Moreland)

METLON CORP. 212-A
432 Fourth Ave.
New York 16, N. Y.
Exhibiting: Metallic yarns, including Metlon with Mylar; fabrics containing these yarns.
Arthur C. Brucks, pres.
Karl H. Inderfurth, rep.
Hayden Cobb, rep.
Walter Geier, rep.
Will Plowden, rep.
Kenneth S. Hunt, rep.
Davis Williams, rep.

MINNESOTA MINING & MANUFACTURING CO. 453
900 Fauquier Ave.
St Paul 6, Minn.
Exhibiting: Pressure-sensitive tapes.
Ray Fagen, sales mgr.
Harold G oth, reg. sales mgr.
R. D. Scattergood, salesman
John Mellon, sa'esman
Jack Garrett, salesman
Bill Rhodes, salesman
Chuck Hardman, salesman
Bill Brown, salesman
W. F. Lanz, adv.
Donald D. Joyce, ind. mkt.
Robert A. Holmes, adv.

MITCHELL-BISSELL CO. 465
825 Brunswick Ave.
Trenton, N. J.
(See R. E. L. Holt)

MODERN TEXTILES MAGAZINE.....120
303 Fifth Ave.
New York 16, N. Y.

MOFFATT BEARINGS COMPANY....266
1640 Fairmount Ave.
Philadelphia 30, Pa.
Exhibiting: A complete line of anti-friction bearings and special mounted units; a Cooper split roller bearing unit adaptable for loom crankshaft and other applications.
Olin S. Livingston, pres.
D. G. Hornbaker, vice-pres.
E. Harold Neely, sec.-treas.
Benjamin M. Ivey, rep.
Robert M. Womb e, rep.
Jos. L. Blackwell, rep.
Walter B. Osborne, rep.
Jas. R. Milford, rep.
Jerry R. Dean, rep.
S. D. Zeanah, rep.
A. Q. Davis, rep.
Robert L. Keefe, rep.

MOISTURE REGISTER CO. 338
1510 West Chestnut St.
Alhambra, Calif.

MOMAR, INC. 361
451 Whitehall St. S.W.
Atlanta, Ga.
Exh.biting: M-4 Magic Cleanser Concentrate for cleaning textile machinery, all types of flooring, windows, oil painted surfaces, wash room equipment, etc., liquid steam cleaning concentrate which wi l not burn hands or skin and does not harm painted surface of equipment to be cleaned; floor finish; concrete floor seal to prevent dusting and eliminate penetration of concrete by oils, etc.; paint and varnish remover; United Floor Machine line of floor scrubbing, waxing, and polishing machines; Doyle industrial wet and dry vacuum pickup machines; complete line of mopping equipment.
Samuel Mohr — Dick Counts
Julian Mohr — Stan Schulman

Momar continued
Sam Marcus — Karlin Sintow
Charlie Shatzen — Jerry Burnstein
Jerry Kaufman — Tom Morgan
Henry Brown — Bill Graham
Charles Trum — Fletcher Stribling
Emile Michael — John E. Nelson

MONA INDUSTRIES, INC. 403
Paterson 4, N. J.
Exhib.ting: Improved Monalit yarn conditioning machine; yarn conditioning attachment for Abbott automatic quiller; textile moisture meter.
W. O. Schlimbach, sales mgr.
R. H. Sommer, treas.
D. H. Heyman, tech. dir.
R. W. Bailey, sales rep.
D. C. O'Hair, sales rep.

MONROE CALCULATING MACHINE CO. 343
555 Mitchell St.
Orange, N. J.

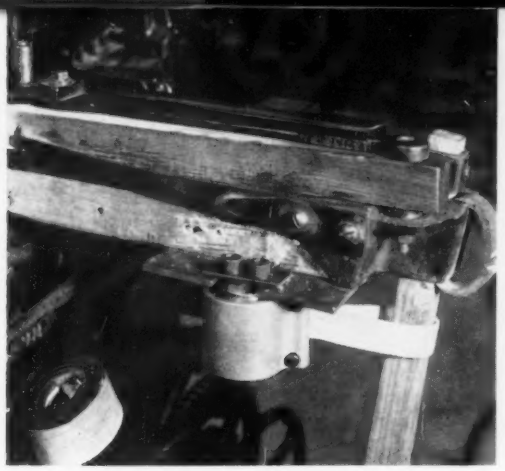
MORTON SALT CO. 353
120 S. LaSalle St.
Chicago 3, Ill.
Exhibiting: New developments pertaining to use of sa t in textile manufacturing.
C. J. Nadherny — Jack Mullinax
V. L. Donahue — E. R. Ravenel
John M. Culp — J. Berge Nei'l
John D. Smith — John C. Drake

MOUNT HOPE MACHINERY CO. 114
15 Fifth St.
Taunton, Mass.
Exh.biting: Free wheeling expander; "Vari-Bow" expander; bowed weft straightener; skewed weft straightener; floating roll guide; continuous roll feed; selvage uncurlers; center bar let-off; and open width tension device.
J. D. Robertson, pres.
J. B. Hammett, gen. mgr.
W. M. Gallahue, gen. sales mgr.
S. A. Moffitt, consultant
J. Basic, consultant
P. H. S aughter, rep.
E. F. Slaughter, rep.

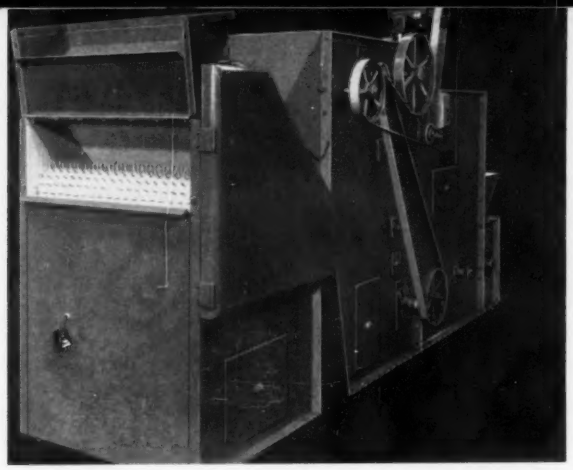
FRANZ MULLER CO. 827
M Gladbach, Germany
Exhibiting: The 36-roller "Tri-Napper" which offers stepless, non-graduated control of cloth speeds and napping power, and many other features.
Seigfreid Schmidt, sales mgr.
August Hoverath, tech.
Joe M. Ballentine, sales engr. Parrott & Ballentine
Perry M. Parrott, sales engr. Parrott & Bal entine
Sam Huffstetler, sales engr. Parrott & Bal entine

T. J. MURPHY FUR CO. 221
Lewiston, Maine
(See Batson Mfg.)

NATIONAL ANILINE FIBERS.....364
Allied Chemical & Dye Corp.
261 Madison Ave.
New York 16, N. Y.
Exhibiting: Caprolan "deep-dye" nylon; Caprolan "tensile-tough" nylon.
George H. Hotte, dir. fiber sales and service



Close-up of loom equipped with the "Checkmaster" hydraulic loom check by Dodenhoff.



The Lummus "Pepper Trash" opener to be exhibited by Aldrich Machine Works. For details, see p. 257.

National Aniline continued
Robert H. Ellsworth, mgr. prom. & adv.
Samuel A. Cooper, sales mgr.
Fred W. Noechel, mgr. prod. development
William H. Poisson, tech. sales rep.

NATIONAL CARBON CO., INC. 365
30 E. 42nd St.
New York, N. Y.
Exhibiting: Dry cells; flashlights; electronic batteries; spectroscopic electrodes; seal rings; brushes; special machined products made from graphite.
C. F. Bishop, div. mgr. battery prod.
H. M. Rutledge, div. mgr. carbon prod.
Morgan Henika, sales engr.
C. T. Tullis, Jr., sales rep.

NATIONAL PLASTICS, INC.....Annex # 6
2326-2330 McCalla Ave.
Knoxville, Tenn.
Exhibiting: Plastic harness sheaves for looms; porous aluminum and ball bearing sheaves; binder bushings; binder bushing shims; for spinning and twisting, a 10" drive for individual spinning drives, 4" and 5" ball bearing idlers which may be utilized in brackets on existing frames; plastic separators (laminated) for use on existing racks; vinyl roving can covers with elastic; vinyl cart covers with elastic.
Chris Van Deventer, III, pres.
(See also Yeomans Textile Machinery)

NATIONAL RING TRAVELER CO. 214
354 Pine St.
Pawtucket, R. I.
Exhibiting: Ring travelers for spinning and twisting of all natural and synthetic fibers.
Frederic L. Chase, Jr., pres. and treas.
L. Everett Taylor, southern mgr.
T. Hill Ballard, sales engr.
Frank S. Beacham, sales engr.
Donald C. Creech, sales engr.
H. Dorsey Lanier, sales engr.

NATIONAL STARCH PRODUCTS INC. 436
270 Madison Ave.
New York 16, N. Y.
Exhibiting: Starch and resin specialties for the textile industry.
J. F. Fitzgerald
Ira L. Dowdee
David R. Lassiter
Howard M. Smith
Edward J. Maslanka
Herbert C. Olsen

NATIONAL VULCANIZED FIBRE CO. 441
Fibre Specialty Division
Box 311
Wilmington 99, Del.
Exhibiting: Kennett materials handling equipment, including three styles of trucks made from hard vulcanized fibre, seamless roving cans, mill boxes and trays.
E. B. Burnley, asst. sales mgr.
Court C. Hannum, plant supt.
R. G. Henderson, sales and ser. rep.

NEMO INDUSTRIES, INC. 320
3133 Maple Drive, N. E.
Atlanta 5, Ga.
Exhibiting: The Nemo camera which permits instantaneous recording of pick clock, hank clock, and other meter readings on movie film which is later developed and run through a projector for convenient and rapid reading and recording of the data collected; also the Nemo Jet Cooker for the instantaneous preparation of size from premixed slurry —a large volume of any type of slurry can be mixed speedily and retained for an indefinite time until passed to the cooker as called for by the level in the size box of the slasher.
Norman E. Elsas, pres.

NEW DEPARTURE 128
Division General Motors Corp.
Bristol, Conn.
Exhibiting: Spindles equipped with Sentri-Seal sealed bearings; tension pulley bearings (horizontal and vertical); treadle roll bearings; sheave bearings; pick ball cam roller bearings; spindle bearings; adapter bearings.
Leonard F. Swoyer, reg. mgr.
Rodger D. Brouwer, sales engr.
William S. Matthews, textile proj. engr.
Louis C. Freeman, Jr., Bristol zone mgr.
James P. Gillilan, mgr. new prod. planning
Ray E. Honeycutt, Charlotte zone mgr.
R. Scott Walker, sales engr.
Langdon Johnson, supv. of agr. and textile proj.
Bruce Dempsey, cont. engr.

NEW ENGLAND PAPER TUBE CO.....130
Pawtucket, R. I.
(See Watson & Desmond)

NEW YORK & NEW JERSEY LUBRICANT CO. 109
292 Madison Ave.
New York 17, N. Y.
Exhibiting: Lubricants for all types of textile machinery and equipment.
Jos. H. Bennis, pres.
I. L. Hall, vice-pres.
L. W. Thomason, southern dist. mgr.
R. F. Bagwell, lub. engr.
A. M. Cowan, rep.
F. W. Phillips, rep.
F. W. Winecoff, rep.
J. A. Sorrells, rep.

NIPPON SPINDLE CO. 362
Osaka, Japan
(See Edward S. Rudnick)

NORLANDER-YOUNG MACHINE CO. 317
South York Road
Gastonia, N. C.
Exhibiting: A sample 40-spindle spinning frame in operation that is completely anti-friction—it will be equipped with umbrella type creel using Bendix bobbin holders, Hartford anti-friction spindles, and Fairbanks pancake motor; "Lint-Tuff" revolving clearer; flyers with "Permaglaze" finish which will not rust or peel; repaired flyers, pressers, spindles, and steel fluted rolls.
Charles J. Webster, chief engr.
James Lindsay, salesman
E. E. (Tony) Hayes, salesman
Bob Wright, salesman
Thomas White, salesman

NORRIS BROTHERS 465
Greenville, S. C.
(See R. E. L. Holt)

NUTTING TRUCK & CASTER CO. 508-B
1201 W. Division St.
Faribault, Minn.
Exhibiting: Floor trucks, casters, and wheels.
Jack Abelson, engr.
L. C. Winters, rep.
Al Little, rep.
Stan Brookshire, rep.
Voris Brookshire, rep.
T. L. Smith, rep.
Jack Leclair, rep.

OAKITE PRODUCTS, INC.....339
19 Rector St.
New York 6, N. Y.
Exhibiting: The Hurriclean gun, a tube-within-a-tube steam gun which features cool operation and easy handling; the Model 374 sprayer which is designed to apply solvent detergent solutions to looms, etc.; a solvent detergent; an alkaline rust-removing detergent; compound for removal of scale; and a product for treatment of water in humidifying systems.
Robert F. Kipp, div. mgr.
B. F. Swint, tech. ser. rep.
D. O. Mundale
H. W. Kole
L. T. Prince

ODELL MILL SUPPLY CO. 213
Greensboro, N. C.
Exhibiting: See list under Greenville Textile Supply.
J. R. Foster
G. H. Batchelor
C. L. Jones, Jr.
D. C. Neese
C. W. Fields
C. G. Price
Clyde Hathcock
G. H. Reynolds
B. C. Caldwell
C. F. Roberts
T. C. Tyson

OLNEY PAINT COMPANY.....426
157 St. John St.
Spartanburg, S. C.
Exhibiting: Gilpon coatings and Gil-Chem enamels—catalyzed and non-catalyzed epoxy resin coatings which provide resistance to acids, alkalies, moisture.
R. B. Olney
W. P. Dobson
J. M. Isom
C. H. Dodson
L. C. Teeters
R. C. Adams

O-M SPINNING MACHINE MFG. CO., LTD. 362
Osaka, Japan
(See Edward S. Rudnick)

THE ORR FELT & BLANKET CO. 116
Piqua, Ohio
Exhibiting: Slasher cloth; clearer cloth.
M. B. Orr, pres.
R. J. Purdy
V. P. Loftis
O. J. Landis
Fred Antley

RICHARD A. OWINGS CO. 318
Greenville, S. C.
(See Paul Stewart Machine Co.)

J. C. PADDOCK CO. 439
Box 235
Spartanburg, S. C.
Exhibiting: Fibre and metal trucks and boxes.
M. K. Firesheets, salesman
L. E. Corn, salesman

PARKS-CRAMER CO. 502
Newport St.
Fitchburg, Mass.
Exhibiting: Systems of air conditioning and humidification; traveling cleaners for all textile mill departments; spinning frame creels; vacuum end collection equipment.

M. H. PARKS CO. 229-A
Winchendon Mass.
(See Wilson F. Hurley)

PARKS & WOOLSON MACHINE CO. 222
Springfield, Vt.
Exhibiting: Space for visitors.
R. F. Hadley, sales engr.
S. W. Hall, sales engr.
A. A. Atkinson, sales engr.

PENICK & FORD, LTD., INC. 430
Cedar Rapids, Iowa

GEO. H. PENNELL CO. 323
2 Brookforest Drive
Greenville, S. C.
Exhibiting: Ramset fastening system—tools and fasteners; Shure-Set hammer driven tool and fasteners; rust cutter penetrating oil.
Geo. H. Pennell, owner
Charles L. Garrett, salesman

PERFECTING SERVICE CO. 409
332 Atando Ave.
Charlotte 6, N. C.
Exhibiting: A newly designed revolving steam joint, designated "The Rotary Union," that offers advantages of field repair, self-adjusting and floating, mechanical sealing that assures long service without leakage, and ball bearing construction that reduces friction drag; a universal bucket-type steam trap, designated the "Unitrap."
A. J. DeMeyer, dir. of sales
W. G. Renner, sales engr.
C. B. Peltason, sales engr.

PERMACEL TAPE CORP. 301
U. S. Highway No. 1
New Brunswick, N. J.
Exhibiting: Pressure sensitive tapes, including strapping tapes, masking tapes, cloth tapes, and paper packaging tapes.
J. W. Hagaman, product mgr.
R. Klemm, product mgr.

PIONEER HEDDLE & REED CO. 213
P. O. Box 116, Sta. A
Atlanta, Ga.
(See Greenville Textile Supply)

PITTSBURGH CORNING CORP. 201
1 Gateway Center
Pittsburgh 22, Pa.
Exhibiting: Glass blocks, Foamglas insulation.
R. T. Thomas, sales rep.
C. A. Golladay, sales rep.
H. G. Jones, mgr. bldg. ins. sales
W. H. Polk, dir. adv. and sales prom.

PNEUMAFIL CORP. 700
Charlotte, N. C.
Exhibiting: Latest developments in vacuum cleaning and material recovery systems: the "Economizer Unit" for spinning frames featuring the powerful direct drive motor; Pneumastop for roving which improves humidity distribution while keeping the frames and strands of roving cleaner and is constantly on guard against broken ends; the Pneumafil central waste collection systems for spinning frames, including the central air handling type, the central material recovery type, and the new Pneumakool which offers central air handling plus a spinning room motor heat removal system; the Tension-Rite bobbin holder; the Lint Free Creel; and the Pneuma-Clear for removal of waste fibers on the Whitin Even-Draft drawing frame.
C. R. Harris, pres.
J. W. Stuart, vice-pres. sales
Perry Clanton, sales mgr.
Wes Henderson, sales engr.
George Archer, reg. mgr.
Ed Williams, sales engr.
Arch Cutting, sales engr.
Dave Thorp, reg. mgr.
Jesse McCall, sales engr.

POE HARDWARE & SUPPLY CO. 229
556 Perry Ave.
Greenville, S. C.
Exhibiting: "Rust-Oleum" paint; the "American" line of temperature regulators and thermometers by Manning, Maxwell & Moore, Inc.; V-belts and hose by Boston Woven Hose & Rubber Co.; impulse steam traps and strainers by The Yarnall Waring Co.; radial arm saw by DeWalt, Inc.
Carter Poe, vice-pres.
T. A. Stone, sales mgr.
Paul Hannah, sales rep.
Furman Massey, sales rep.
Harry Graham, sales rep.
R. L. Logan, Manning, Maxwell & Moore
Lamar Kirby, Manning, Maxwell & Moore
J. H. Macy, Yarnall Waring Co.
Ben Larson, Boston Woven Hose & Rubber
W. F. Dashiell, Boston Woven Hose & Rubber
W. T. Henderson, Jr., vice-pres.
J. J. Swan, adv. mgr.
Russell Ellerbe, sales rep.
Herman Moore, sales rep.
Jim Hardy, sales rep.
Olin Jones, Rust-Oleum Corp.
N. B. McCulloch, DeWalt, Inc.
R. L. Fergusson, Rust-Oleum Corp.
R. F. O'Leary, Boston Woven Hose
W. C. McDonald, Boston Woven Hose

THE PORTLAND CO. 221
Portland, Maine
Exhibiting: Chapman static eliminators.
Zane S. Blanchard, sales mgr.
Frank E. Hanscom, field engr.
John J. Sapp, adv. mgr.
(See also Batson Mfg. Co.)

THE POWERS REGULATOR CO. 322
1002 Arnold Street
Greensboro, N. C.

PRECISION GEAR & MACHINE CO. 508-A
2001 North Tryon St.
Charlotte, N. C.
Exhibiting: Bearing applications; gears; chain drives, and cams; a new all-enclosed electric magnetic clutch card drive.
C. B. Bookout, sales mgr.
A. G. Laughridge
R. Ballard
G. Oberfell, sales engr.

PROCTOR & SCHWARTZ, INC. 256
7th St. & Tabor Road
Philadelphia 20, Pa.
Exhibiting: A model cross section of the Proctor hot air slasher dryer which offers maximum production of quality yarn and minimum floor space requirement; photographs of other Proctor equipment, including the roller curer, loop ager, tenter housings, equipment for tufted carpet industry, equipment for producing nonwoven fabric, blending equipment, continuous bleach system, carding and preparatory equipment, etc.
W. H. Poole
C. W. Schwartz, 4th
R. L. Hendricks
T. A. Mahan
H. G. Black
J. P. Christ

PRODUCT SALES, INC. 271
21 Vernon St.
Whitman, Mass.
Exhibiting: "Climax" ball bearing top rolls for drafting of cotton, synthetics, wool; "Cleandraft" non-lubricating nylon top rolls for drafting cotton, synthetics, wool; "Cleanalign" saddle assemblies for spinning of cotton and short staple synthetics; "Sureweight" top roll weight tester; and a new spinning changeover.
Frank H. Cotton, vice-pres.
Raymond L. McCauley, sales rep.
George W. Parkinson, sales rep.

PROGRESSIVE ENGINEERING, INC. 130
Rockland, Mass.
(See Watson & Desmond)

THE PURE OIL CO. 513
35 East Wacker Dr.
Chicago 1, Ill.
Exhibiting: Industrial lubricants.
B. W. Parsons, ind. engr.
P. M. Wilson, ind. engr.
B. C. Parrish, ind. engr.
H. H. Halstead, ind. engr.
L. C. Hollingsworth ind. engr.
Bill Elam
Joe Cooper
Bob Morrison

PURITAN CHEMICAL CO. 421
916 Ashby St. N. W.
Atlanta, Ga.
Exhibiting: Sanitary supplies.
Ted V. Fisher, gen. sales mgr.
Charles E. Braun, sales mgr. southern div.
Ed. P. Collins, reg. sales mgr.
Harry S. Collinson, sales rep.
L. G. Martin, sales rep.

RAGAN RING CO. 105
901 S. Main St.
East Point, Ga.
Exhibiting: Spinning and twister rings; cast iron holders.
H. B. Askew, salesman
C. H. White, salesman
Ralph Ragan, pres.
Ralph L. Ragan, engr.

REEVES PULLEY CO. 257
Columbus, Ind.
(See Reliance Electric)

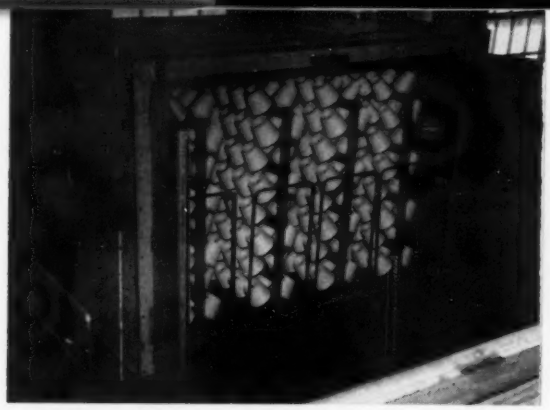
ROBERT REINER, INC. 121
550 Gregory Ave.
Weehawken, N. J.
Exhibiting: New warper for beams up to 44" in diameter; Reiner-Menschner cloth inspection and defect marking machine; model of the Reiner-Famatex tenter.
Walter Horn
William Whary
Alexei Woelz, Reiner-Famatex, Inc.

RELIANCE ELECTRIC & ENGINEERING CO. 147
1088 Ivanhoe Rd.
Cleveland 10, Ohio
Exhibiting: The Super T d-c motor featuring minimum response time, minimum speed drifting, and maintenance of torque or tension to an extremely fine degree; the VS-100 variable speed drive for winders and other machines that require continuous speed adjustment up to 100:1; lint-proof textile motors; gearmotors; Reeves Pulley Co. equipment, including the Vari-Spin drive for spinning frames; fractional hp Vari-Speed Motordrive; Vari-Speed motor pulley; Flexi-Speed drive for converting standard constant speed motors into variable speed; variable speed transmissions.
F. W. Leitner, br. mgr.
E. G. Orahood, br. mgr.
C. D. Wright, br. mgr.
J. T. White, br. mgr. Reeves Pulley
M. R. Snyder, br. mgr. Reeves Pulley
L. E. Blackwell, sales engr.
R. T. Willard, br. mgr.
J. E. Walker, mgr. v-s & d-c prod. sales
W. C. McConnell, mgr. a-c prod. sales
K. F. Ertell, adv. mgr.

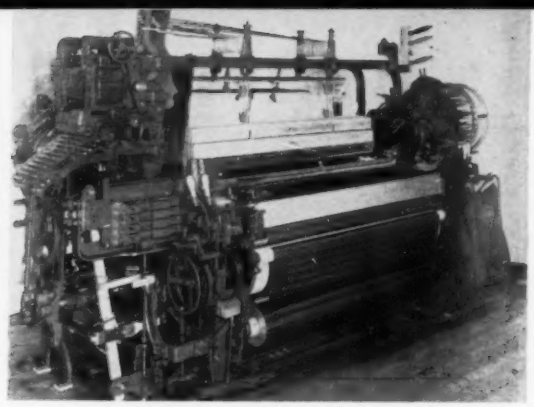
RICE DOBBY CHAIN CO. 465
Millbury, Mass.
(See R. E. L. Holt)

THE RIDGE TOOL CO. 461
400 Clark St.
Elyria, Ohio
Exhibiting: Pipe wrenches; pipe cutters; tubing cutters; pipe threaders; pipe vises; "Ridgoilr;" nipple chucks; extractors; power drives; pipe and bolt threading machines; threading oils; pipe supports; reamers.
R. D. Fye, rep.
M. B. Williams, rep.
Ralph Hamlin, rep
W. L. Parcell, vice-pres. sales

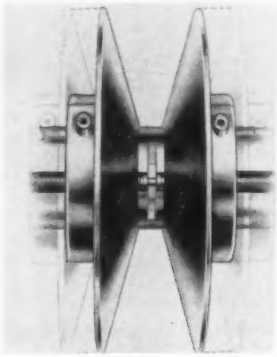
ROBERTS COMPANY 142
Raleigh Highway, P. O. Box 931
Sanford, N. C.
Exhibiting: 25 inch and 39 inch spinning frames; ball bearing spindles; suction cleaning; AeroCreels; ball bearing top suspension systems.
R. E. Pomeranz
J. N. Pomeranz
R. D. Padgett
C. E. Oliver
F. R. Walker
G. C. Cater
M. C. Golden
William Bowlin
W. C. Robinson
F. T. Glass



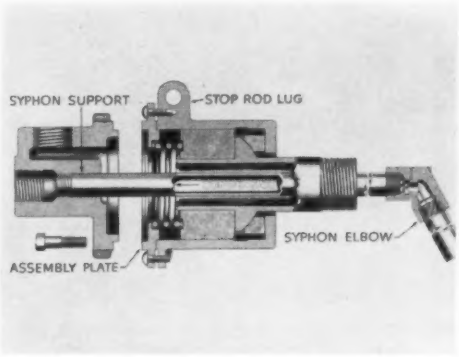
The "H-W" conditioner for cotton knitting yarn will be displayed by Industrial Dryer Corp.



At the Crompton & Knowles booth this automatic bobbin changing dobby cotton dress goods loom may be seen.



Wood's "Sure-Grip" sheaves.



Johnson self-supporting rotary pressure joint.

Fenwal's 560 temperature controller.

ROTHERM ENGINEERING CO. 216
7280 West Devon
Chicago 31, Ill.
Exhibiting: Revolving and expansion joints.
H. S. Kuhn, pres.
Harley D. Hohm, rep.

B. S. ROY & SON CO. 207
Worcester, Mass.
Exhib.ting: Self-aligning, ball bearing cylinder grinder; hi-speed drum roll grinder; top f at cradle with hard heads; internal long-life ball bearing traverse grinder; steel flanked burnisher and stripper roll.
Donald G. Bousquet, mgr.
William F. Crowder, sales engr.
Leon Frye, sales engr.
John Buckley, supt.

EDWARD S. RUDNICK 362
Olympia Building
New Bedford, Mass.
Exhibiting: A super high draft spinning frame (sliver-to-yarn, large package) and an automatic can-changing drawing frame manufactured by O-M Spinning Machine Mfg. Co.; a pneumatic clearer system and spindles manufactured by Nippon Spindle Co.; spinning and roving bobbins by Izumi Bobbin Co.; shuttles by Gode Shuttle Co.; ring travelers by Kanai Traveller Mfg. Co.; and card clothing by Nippon Card Clothing Co., Ltd.
Edward S. Rudnick
S. Tominaga, export-import agent
Mr. Wazaki, engr.
Mr. Miyazawa, engr.

SACO-LOWELL SHOPS 828
60 Batterymarch St.
Boston 10, Mass.
Exhibiting: The Versa-Matic high production drawing frame processing cotton stock; a Model 56 comber operating at 125npm, and featuring a draw box equipped with self-cleaning clearers and the new Edfors Geneva motion; a Gwaltney spinning frame with the Model SG3-J drafting element, designed to process synthetic staples up to 3" long; a conventional spinning frame spinning 30s warp yarn for print cloth, one side of which will be fitted with the regular "Stay-Clean drafting assembly and the other with the new "Truset top arm" (a self-contained spring pressure unit) carrying a standard Duo-Roth drafting element.
W. F. Lowell, Sr., vice-pres.
E. J. McVey, vice-pres. of sales

SCHARER TEXTILE MACHINE WORKS .....Annex #6
Erlenbach-Zurich, Switzerland
Exhib.ting: Two fully automatic filling winders for winding cotton and spun rayon from cones or cheeses over end onto automatic bobbins, one of which will be stacking wound bobbins into individual boxes placed underneath each winding unit and the other stacking wound bobbins into double boxes each taking the production of two winding units.
Jacques Scharer, owner
Kasper Laager, tech.
Otto Zollinger, tech.
(See also Yeomans Textile Machinery)

W. SCHLAFHORST & CO.....Annex #3
M. Gladbach, Germany
(See Terrell Machine)

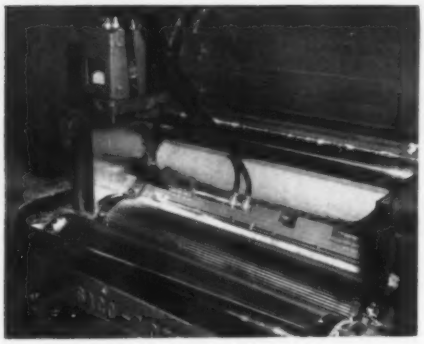
SCOTT TESTERS, INC. 401
101 Blackstone St.
Providence, R. I.
Exhibiting: A new double screw drive, super precision tensile strength tester, model CET, for testing any type of textile fiber, yarn, or construction within the range 0-2,000 lb.
D. C. Scott, Jr., pres.
John Klinck, SE sales rep.
John E. Hargreaves, mgr.

THE SELIG CO. 232
342 Marietta St. N. W.
Atlanta, Ga.
Exhibiting: Equipment and material for textile mill floor maintenance, including Holt combination sanding and steel wool machine and Selig's Floroseal, Florglaze, Selcoseal, and the Lumx products; special textile hand soaps and paste hand cleaners; degreasing compounds; loom cleaners; and complete equipment and supplies for sanitary maintenance in textile mills.
William F. Bode, gen. mgr.
Alvin Hamburger, sales mgr.
Charles Pearl, vice-pres.
Lee Strasburger, treas.
Alvin Schweb
Charles Vickery
Milton Doctor
Bert Wooten
Sol Hayes

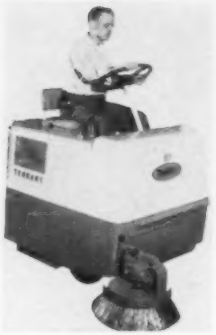
SEYDEL-WOOLLEY & CO. 238
748 Rice St. N. W.
Atlanta, Ga.
Exhibiting: The new model Seyco warp lubricator which is designed for simplicity, efficiency, and accessibility; a scale working model of the improved Niagara twist setter which allows more rapid and easier cleaning of the filter units; various Seyco textile chemicals.
Vasser Woolley, pres.
Paul Seydel, vice-pres.
John Seydel, vice-pres.
A. W. LaGrone, dist. sales mgr.
Walter Whisnant, special consult.
Eddie Harrison, sales engr.
Francis deLoach, sales engr.
W. H. Cutts, sales engr.
V. R. Mills, sales engr.
David Meriwether, sales mgr.
R. P. Anthony, sales engr.
T. Howard McCamy, sales engr.

SHELL OIL CO. 805
50 West 50th St.
New York 20, N. Y.

SIGNODE STEEL STRAPPING CO.....404
2600 North Western Ave.
Chicago 47, Ill.
Exhibiting: Power strapping tools and machines for applying steel strapping to cartons, bales, and bundles; new methods of packaging.
C. H. Carlson, asst. mgr. sales prom.
S. W. Brown, dist. mgr.
J. F. Redford, special rep.
J. H. Burch, salesman
C. E. Talbutt, salesman
M. Helsey, salesman
T. D. Freeman, salesman
A. S. Stephens, salesman

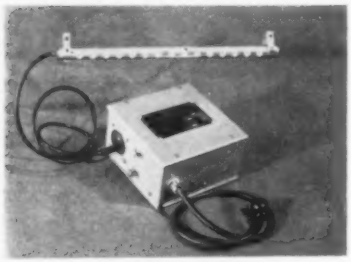


Uster Corp. will display the Lap Varimeter which is shown here on a picker.

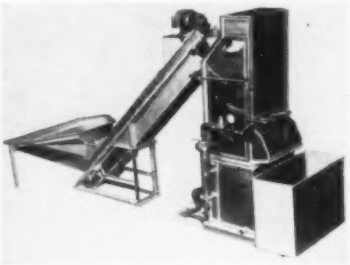


Compact, aisle-sized sweeper by Tennant.

The Model 66 automatic filling winder with pinboarding attachment by Foster Machine Co.



Chapman static eliminator made by The Portland Co.



An improved model of the Niagara twist setter will be shown by Seydel-Woolley.

Marsh stencil machine to expedite shipping department operations.

SINCLAIR REFINING CO. 103
630 Fifth Ave.
New York, N. Y.

J. E. SIRRINE CO. 205
Greenville, S. C.
Exhibiting: Space for visitors.

A. D. Asbury	Milton Lite
F. B. Bozeman	H. L. McDona'd
R. R. Adams	J. T. Mallard
A. S. Bedell	F. M. Martin
J. H. Bringhurst, Jr.	G. R. Morgan
L. W. Burdette	W. H. Nardin
J. W. Cantrell	G. P. Patterson
W. A. Cox	J. L. Roberson
G. W. Cumbus	W. A. Robinson
L. S. David	L. A. Seaborn
H. S. Forrester	J. F. Spellman
H. W. Frederick	M. M. Stokely
O. F. Going	H. C. Swannell
C. E. Hatch, Jr.	C. T. Wise
M. C. Kendrick	G. Wrigley, Jr.

S K F INDUSTRIES, INC. 510
Front St. and Erie Ave.
Philadelphia 32, Pa.
Exhibiting: Ball bearings for textile applications.
F. J. Matte
G. M. Boullion
D. B. Eden
B. K. Lathbury
J. T. Paradise
K. Warberg

SLIP-NOT BELTING CORP......358
Box 3061
Greensboro, N. C.

B. SNOWISS FUR CO. 465
Clinton & Hanna Sts.
Lock Haven, Pa.
(See R. E. L. Holt)

SOCONY MOBIL OIL CO., INC......309
26 Broadway
New York, N. Y.

SONOCO PRODUCTS CO. 244
Hartsville, S. C.
Exhibiting: Paper cones, tubes, cores, spools, and textile specialties; molded bobbins, sleeves, cores, and tubes; plastic single head spools; plastic and fibre pirns and spools; cork and synthetic rubber cots and rolls.
C. W. White, dir. of sales
W. K. Lewis, Jr., new prod. coordinator
J. K. Taylor, sa'es mgr.
L. H. Stokes, asst. sales mgr.
R. V. Blackwell, asst. div. sales mgr.
Allen Carter, asst. div. sales mgr.
C. Hugh Campbell, asst. div. sales mgr.
L. C. Wall, asst. div. sa'es mgr.
W. B. Broadbent, salesman
P. F. Williams, salesman
W. M. Carpenter, salesman
B. H. Biggs, salesman
W. R. Peacock, salesman
C. B. Harper, salesman
J. A. Reagan, Jr., adv. mgr.

SOUTHEASTERN LOOM & MACHINE WORKS 131
Division of Abney Mills
200 Academy St.
Greenville, S. C.

SOUTHEASTERN SAFETY APPLIANCE CO. 346
1010 Crescent Ave. N. E.
Atlanta 9, Ga.
Exhibiting: Ansul dry chemical fire extinguishers; Davis first-aid equipment and supplies; Scott air-paks and inhalators; Miller linemen's tools, belts, and safety straps; Charleston rubber gloves.
George D. Johnson, partner
W. E. Beddingfield, field engr.
P. H. Ellington, field engr.
James L. Duffy, field engr.
A. R. Schneider, field engr.

SOUTHERN STATES EQUIPMENT CORP. 267
Hampton, Ga.
Exhibiting: Individual card drive; ball bearing comb box; 14", 15" and 16" coiler conversion; 18" and 20" coiler conversion.
C. W. Walter, sales mgr.
C. H. Kennington, salesman
W. H. Knapp, salesman
Frank Birchfield, salesman
R. L. Williams, salesman
John Walters, salesman

SOUTHERN WEAVING CO. 340
Greenville, S. C.
(See Oliver D. Landis)

SPAULDING FIBRE CO. 359
Dover, N. H.
Exhibiting: Vulcanized fibre boxes, trucks, roving cans; textile accessory items such as bobbins, lap spools, take-up tubes, pirn caps, etc.
Dan F. Dawson, br. mgr.
Robt. L. Cobb, office mgr.
J. J. Pazdan, sales engr.
Bruce King, br. mgr.

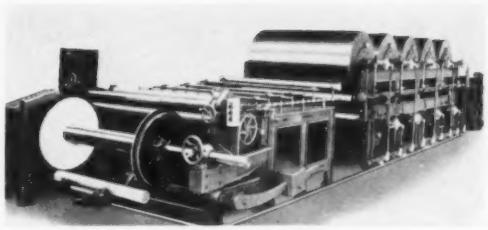
SPINSAVAC CORP. 502
(See Parks-Cramer)

A. E. STALEY MFG. CO. 417
Decatur, Ill.
Exhib.ting: Starches and dextrins.
W. N. Dulaney, mgr. Atlanta
N. N. Harte, Jr. sales rep.
H. A. Mitchell, sales rep.
L. J. McCall, sales rep.
C. H. Garren, sales rep.
H. H. Ector, sales rep.
D. A. Barnes, tech. rep.
E. H. Grosse, tech. ser.
N. K. Hammer, asst. sales mgr.

THE STANLEY WORKS 145
Steel Strapping Division
Magic Door Division
New Britain, Conn.
Exhibiting: The Stanley "Jet," a pneumatic tool for app'ying steel strapping to packages; industrial swinging and sliding doors in action, actuated by photo electric eyes.
Steel Strapping personnel
J. C. McGunnigal, sales mgr.
J. A. Dickson, dist. mgr.
T. P. West
W. L. Tolson, Jr.
R. F. Brown
C. J. Turpie
Magic Door personnel
C. K. Nichols, sales mgr.
J. R. Tlanda, service mgr.
F. M. Hatcher
J. T. Cobb
T. L. Bobbitt
A. H. Hill
N. A. Stall

STA-WARM ELECTRIC CO. 360
Ravenna, Ohio
(See W. K. Hile)

Machinery mounting pad by Clark-Cutler-McDermott.



This multi-cylinder slasher will be shown by West Point Foundry & Machine Co.

Steele Style 93 canvas basket with tilt-type casters.

Yale & Towne fork lift truck for textile industry use.

Terrell Type M roving bobbin cleaning machine with bobbin box hoist.

Ridge Tool Co. will display this power drive for operation of hand pipe tools.

STEDCO SOUTHERN, INC. 465
1015 Warehouse St.
Greensboro, N. C.
(See R. E. L. Holt)

STEELE CANVAS BASKET CO., INC. 355
199 Concord Turnpike
Cambridge 40, Mass.
Exhibiting: Canvas trucks, hampers, baskets, and bags.
Gordon L. Whynaught, sales mgr.

STEEL HEDDLE MFG. CO. 137
2100 W. Allegheny Ave.
Philadelphia 32, Pa.
Exhibiting: Drawtex loom harness frames, flat steel heddles; shuttles; warping and slashing expansion combs; open top lease reeds; chrome plated lease rods; pigtail guides; precision ground and hardened tension discs; precision stampings; industrial hard chrome plated items; precision fine grain castings; metal fabrications.
H. W. Fehr, pres.
Frank Kaufmann, Phila. plant mgr.
A. J. Kieny, Phila. prod. mgr.
J. J. Kaufmann, Jr., exec. vice-pres.
J. B. Bowen, G'vil e works mgr.
G. D. McGill, prod. mgr.
J. I. Long, prod. eng. dir.
H. P. Goodwin, southern sales mgr.
Sam Zimmerman, Jr., dist. mgr.
Davis Batson, dist. mgr.
John Neuffer, sales rep.
Richard Stevens, sales rep.
Wesley Hixon, sa es rep.
Hugh Cash, sales rep.
Brumley Pritchett, sales rep.
Jimmy Jacobs, sales rep.
Dave Macintyre, dist. mgr.

STEIN, HALL & CO., INC. 442
285 Madison Ave.
New York 17, N. Y.
Exhibiting: Metallic pigment printing binders, starches, dextrins, resins, gums, tapioca flour; cloths of various constructions finished with such specialties as Vinrex 202 and RTC; printed swatches produced with Bondrez 844-M, Bondrez 501, and Bondrez 666.
Edwin Stein, chairman of board
Lawrence Gussman, pres.

Stein, Hall continued
Daniel H. Lipman, vice-pres.
Leonard F. Costello, mgr. textile dept.
Norman H. Nutta l, br. mgr.
Edward D. Estes, br. mgr.
D. E. Truax, chemist
Jack B. Wathey, chemist
Robert Staples, sales
Harold Harrelson, sales
Lewis Blackshear, sales
E. Philip Lavoie, sales
John W. Benefield, sales

STELLITE AMERICAN CORP. 835
60 E. 42nd St.
New York 17, N. Y.
Exhibiting: Products of Thoma Co., including a suction cleaner for cotton and wool spinning frames and the "Rotafil" device for reducing ends down on the roving frame; counting devices manufactured by N. Zivy, including a pick counter with a printing device and a single shift counter with a pay-day totalizer; the fisherman's knotter by Cook & Co., which is especially suitable for worsted type yarns; equipment manufactured by A. Carniti, including the Tematex Intersector, drafting systems, and spindles; the "Autodinamografo," a fully automatic single strand strength and the longation tester with automatic computation of strength and elongation averages.
Victor Saxl, vice-pres.
H. Thoma
F. Kraehschuetz
Mrs. H. P. Levy

STERLING ENG. & MFG. CO. 217
173 Gilligan St.
Wilkes-Barre, Pa.
Exhibiting: Self-stacking boards for handling of bobbins, cones, tubes, quills, etc., made of cadmium plated and stainless steel; aluminum quill boards and self-stacking tube boards with flexible holder for yarn shrinkage; also yarn handling trucks.
George McGee, vice-pres.

PAUL STEWART MACHINE CO. 318
Gastonia, N. C.

STRANDBERG ENGINEERING LABORATORIES, INC. 324
416 West Market St.
Greensboro, N. C.
Exhibiting: Picker tare weight indicator; The Moisture Monitor; automatic controllers.
Charles F. Strandberg, pres.
Clyde L. Miller, Jr., sales mgr.
Richard G. Holyfield, fie.d engr.

STROMBERG TIME CORP. 110-B
Thomaston, Conn.
(See Barker Instrument & Machine)

SUNRAY CO. 213
Spartanburg, S. C.
(See Greenville Textile Supply)

SUPERIOR BOLSTER CO. 326
Box 1040
Gastonia, N. C.

SYKES FOUNDRY & MACHINE CO., INC. 505
1234 Maple Ave.
Burlington, N. C.
Exhibiting: Cloth room equipment, including grading frame, roll-up machine, air guide; slubbing attachments for spinning and twisting; parts for C&K W-3 loom.
K. C. Sykes, vice-pres.
A. R. Miles, foundry supt.

SYLVANIA ELECTRIC PRODUCTS, INC. 449
Salem, Mass.

W. O. & W. M. TALCOTT, INC. 406
91 Sabin St.
Providence, R. I.

TAYLOR INSTRUMENT COMPANIES 428
Rochester, N. Y.
Exhibiting: "Transet" potentiometer transmitter used in conjunction with pH control; vo umetric load elements for measurement of tension and compression; control system for high speed slashing; "Bi-Therm" bi-metallic dial industrial

thermometers for textile process applications.
H. G. Olson, mgr. textile sales
L. H. Van Huben, appl. engr.
H. M. Messenger, sales
G. E. He ler, asst. ind. sales mgr.
W. C. Gray, br. mgr.
R. S. Peterson, sales
J. Barker, br. mgr.
H. M. Barker, sales
J. Burnett, sales

G. H. TENNANT COMPANY 450
2524 N. 2nd St.
Minneapolis 11, Minn.
Exhibiting: Compact power sweeper for textile mills; self-propelled floor cleaning machines; floor maintenance materials, floor seals, etc.
Robt. Guthrie, div. mgr.
Geo. D. Billings, adv. mgr.
Wm. Bostwick, dist. rep.
Elmer K. Hardy, dist. rep.
William M. Thompson, dist. rep.
John J. Jones, dist. rep.
Dallas Peel, dist. rep.
William J. Teague, dist. rep.

THE TERRELL MACHINE CO., INC. .....Annex #3
3000 South Blvd.
Charlotte, N. C.
Exhibiting: The Schlafhorst Autocopser automatic fil'ing winder with boxing attachment for cotton and spun winding and with pin board attachment for continuous filament yarns: Termaco bobbin feeders which make it possible for one operator to run two filling bobbin cleaning machines; Type L loom bobbin cleaner; bobbin selectors; bobbin box hoists; Type M roving bobbin cleaning machine with bobbin box hoist; Denman loop and box loom pickers and other rubber and fabric loom supplies.
W. S. Terrell
Dr. Walter Reiners
H. Deussen
M. H. Ridenhour
J. Bowler
J. R. Hartmann
J. F. Notman
J. E. Scott
D. Black

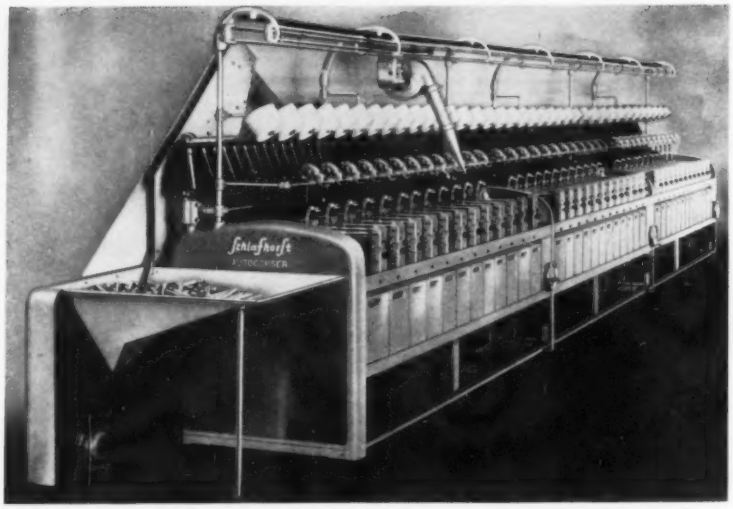
THE TEXAS COMPANY 424
135 E. 42nd St.
New York, N. Y.
Exhibiting: Fountain spray featuring "Texspray Compound;" special lubricating oils and greases for textile mill equipment.
F. G. Mitchell
D. C. Rand
W. L. Armstrong
K. T. Gardiner
J. A. Bucklin
A. C. Keiser, Jr.
L. C. Mitchum
J. W. Kay
F. A. Boykin
Robert Brown
C. L. Adams
W. M. James
R. E. Werder
J. M. Hackney
F. M. Edwards
W. B. Warner
C. T. Hardy
J. H. Murfee
C. W. Meadors
W. S. Futch

Stop by Booth 408

TI's editorial, business, and circulation representatives will be on hand to greet you.

Refer to the floor plan on page 149-154 and you will find us on the left as you enter Annex No. 1 via the rear passageway from the main building, just across from Keever Starch, Westinghouse, and Bullard Clark.

We'll be glad to see you.



Terrell Machine will show the Schlafhorst Autocopser automatic filling winder.

TEXIZE CHEMICALS, INC. 411
P. O. Box 1820
Greenville, S. C.
Exhibiting: Space for visitors.
W. J. Greer, pres.
W. N. Kline, Jr., ind. sales mgr. vice-pres.
Carl M. Chalmers, asst. ind. sales mgr.
Joe A. McNeill, tech. rep.
Walter M. Greer, sales rep.
Ralph L. Parker, sales rep.

TEXTILE AGE (publication).....123
1 River Road
Cos Cob, Conn.

TEXTILE BULLETIN (publication).....204
Charlotte, N. C.

TEXTILE INDUSTRIES (publication)..408
806 Peachtree St., N. E.
Atlanta 8, Ga.
Exhibiting: "Textile Industries" magazine and textile books and literature for textile mill management and production personnel.
Richard P. Smith, pres.
John C. Cook, business manager
J. Frank Guest, managing editor
George H. Dockray, executive editor
Milton C. May, assoc. ed.
Jesse W. E'lington, assoc. ed.
Stanley M. Suchecki, assoc. ed.
Walter M. Mitchell, Jr., adv. mgr.
Arthur C. Shaw, bus. rep.
William K. Hoffman, bus. rep.
George Isherwood, bus. rep.
A. E. C. Smith, bus. rep.
A. C. Petersen, bus. rep.
W. Cliff Rutland, bus. rep.

THE TEXTILE SHOPS 138
Spartanburg, S. C.

TEXTILE WORLD (publication).....224
330 W. 42nd St.
New York 36, N. Y.

TEXTUBE CORP. 130
Stamford, Conn.
(See Watson & Desmond)

H. J. THEILER CORP. 815
22 Ashmont Ave.
Whitinsville, Mass.
Exhibiting: A single cylinder, double lift, cam dobby that utilizes simple paper patterns; a card cutting and copying machine to cut patterns for the Staubli head motion.
H. J. Theiler, pres.
Othmar Staubli
Hans Badertscher
H. S. Singer
Fritz Bolliger

THOMA COMPANY 835
Spartanburg, S. C.
(See Stellite American)

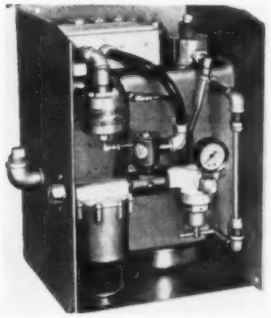
THOMASON TEXTILE SERVICE, INC. 269
2233 Greene St.
Charlotte 8, N. C.
Exhibiting: A complete physical testing laboratory in operation to show the types of services offered to spinning mills.
W. A. Thomason, Jr., pres. and treas.
Leroy Dalton, lab. mgr.
William R. Beaver, lab. tech.
Delana R. Helms, sec.

TOLEDO SCALE CO. 455
Telegraph Road
Toledo, Ohio
Exhibiting: A new portable cotton lap scale with automatic "printweigh;" representative models of the complete line of weighing equipment for the textile industry, including fan scales, net-weighing scales, portable scales, parcel post scales, and low platform portable warehouse scales.
M. W. Mengel, std. ind. prod. mgr.
G. H. Webb, custom ind. prod. mgr.
H. B. Sanford, reg. mgr.
W. F. MacKinnon, dist. mgr.
C. H. Cadwallader, adv. mgr.
E. B. Heape, div. distr.
W. S. Heape, div. distr.

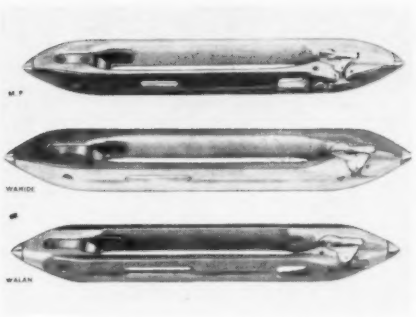
TON-TEX COMPANY 465
31 Columbus Ave.
Englewood, N. J.
(See R. E. L. Holt)

TRUMETER COMPANY 228
1265 Broadway
New York 1, N. Y.
Exhibiting: Measuring machines and counting devices.
Eric Seligmann, mgr.
R. Jacobus, asst. mgr.
J. H. Aydelette, rep.
J. F. Slaughter, rep.

TRUSCON LABORATORIES 325
1700 Caniff St.
Detroit 12, Mich.
Exhibiting: A number of maintenance finishes, including Speed-Rex Modified Finishes for air conditioning equipment and ducts, Chemfast Devran Epoxy Resin Coatings for use in wet process operations, Granitex with Devran for floors, wall paints, etc.
Earl F. Strub, br. mgr.
Dan O. Schmidt, sales rep.
Frank A. Ricketts, sales rep.
R. J. Emerson, Jr., asst. sales mgr.

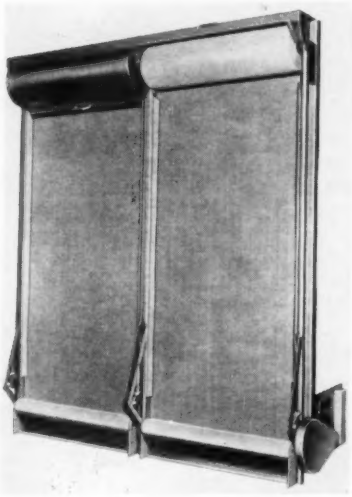


Alemite Oil-Mist lubrication system equipment.

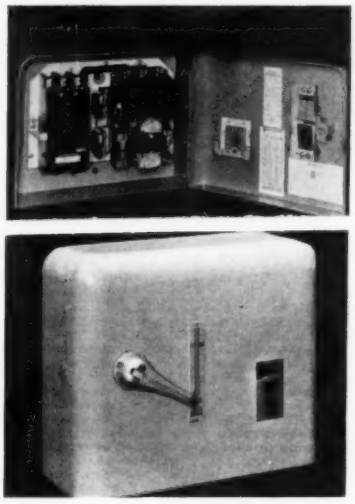


Three of the shuttles to be exhibited by Watson-Williams Mfg. Co.

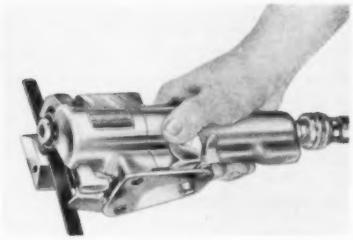
Special-purpose textile motor made by Allis-Chalmers Mfg. Co.



Auto-Airmat air filter to be exhibited by American Air Filter Co.



Open and closed views of Westinghouse switch for Gwaltney spinning frame.



Stanley "Jet" pneumatic tool for applying steel strapping to packages.

UNION BAG-CAMP PAPER CORP.....350
233 Broadway
New York 7, N. Y.
Exhibiting: Yarn, finished fabric, and finished products in standard and specially designed corrugated boxes.
J. W. Butler, southern dist. sales mgr.
R. C. Day, sales rep.
T. J. Fahey, sales rep.
F. P. Grimes, sales rep.
J. T. Hough, sales rep.
H. A. Murrill, Jr., sales rep.
A. Smith, Jr., sales rep.

UNIVERSAL WINDING CO. 826
P. O. Box 1605
Providence, R. I.
Exhibiting: Two Unifil loom winders in action, one on a Draper XD loom winding filament synthetics and the other on an X2 loom winding cotton yarn; the Model 10 ring twister and No. 50 winder plying and winding some of the popular bulk and stretch yarns; the Unirail uptwister; and the No. 955 take-up which winds at very close tension tolerances.
R. Leeson
R. S. Pennock
T. L. Cotter
E. C. Parish
F. P. Barrie
F. J. Barrows
J. W. Stribling
J. R. Breen
H. D. Kernan
L. E. Ffrench
H. H. Richardson

U. S. BOBBIN & SHUTTLE CO. 127
135 Bradford St.
Lawrence, Mass.
Exhibiting: Shuttles and bobbins.
Robert L. Carroll, southern sales mgr.
John C. Fulling, rep. sales
Charles Hite, rep. sales
M. L. Johnston, rep. sales
J. Hugh Stephens, rep. sales

U. S. RING TRAVELER CO. 801
Exhibiting: Space for visitors.
L. W. Doel
W. H. Rose
R. V. Borden
O. B. Land, Sr.
H. R. Fisher

U. S. TEXTILE MACHINE CO. 249
411 Gilligan St.
Scranton, Pa.
Exhibiting: Latest models of throwing and auxiliary equipment.
Pacific J. Thomas, vice-pres.
A. W. Thomas, Jr., vice-pres. sales
Fred C. Nave, southern rep.

USTER CORP. 700
2516 Wilkinson Blvd.
Charlotte, N. C.
Exhibiting: Warp tying machine; selvage tagging device; a hydraulic loom check; universal evenness testers; Model C filament evenness tester; Spectrograph; Hy-Lo Indicator; Lap Varimeter; automatic yarn strength tester; multiple bobbin attachment for strength tester; utility cars for testing equipment.
Hans Locher, dir. Zellweger, Ltd.
W. B. Floyd, testing equip. mgr.
Hans Winiger, machinery equip. mgr.
Rudo'ph Nichols, field engr.
Erie Trinkler, field engr.
B. E. Sweet, sales engr.
V. H. Brockman, sales engr.
Jack W. Taylor, sales engr.

VEEDER-ROOT, INC. 107
Hartford 2, Conn.
Exhibiting: A complete line of textile counters, including pick counters, hank counters, loom cut meters, predetermining counters, yardage counters, revolution counters, hosiery dozens counters, stretch indicator counters, inspection table counters, etc.
A. E. Kal'inich, vice-pres.
G. L. Logan, sales mgr.
T. Nelson, field sales mgr.
F. J. Swords, southern dist. mgr.
R. C. Conant, dist. engr.
H. E. Mansfield, dist. eng.
H. B. Huff, dist. engr.

VERMONT SPOOL & BOBBIN CO.....130
Burlington, Vt.
(See Watson & Desmond)

VICTOR RING TRAVELER CO. 218
20 Mathewson St.
Providence, R. I.
Exhibiting: Space for visitors.
Walter L. Hudson, southern sales mgr.
C. W. Wilbanks, ser. engr.
F. P. Bodenheimer, ser. engr.
Wm. T. Horton, ser. engr.
Bryan T. Horton, ser. engr.
C. H. Green, ser. engr.
E. R. Jerome, pres. & gen. mgr.

WALWORTH COMPANY 809
60 East 42nd Street
New York 17, N. Y.
Exhibiting: Polyvinyl chloride valves and pipe fittings; valves and pipe fittings of bronze, iron, steel, and special alloys; pipe wrenches.
M. H. Luttrell, mgr. SE div.
J. J. Burke
E. L. Charlton
E. W. Edgerton
L. P. Williams

WARREN BELTING CO. 229-A
Worcester, Mass.
(See Wilson F. Hurley)

WATSON AND DESMOND 130
220 West Fourth St.
Charlotte, N. C.
Exhibiting: Shuttles by Watson-Williams; paper tubes and bobbins by Textube Corp.; Zinser-SKF anti-friction spindles; Reiners & Fuerst nitrided rings for spinning and hand knotters; anti-friction top rolls for spinning and roving by Progressive Engineering; wood spinning and warp bobbins by Dana S. Courtney; Vermont spools and twister bobbins; plastic bobbins by Vulcanized Rubber & Plastics; dye tubes by New England Paper Tube; flyers by Eugene Maier; shuttle fur by R. M. Taylor; humidifiers by Walton

SOUTHERN TEXTILE EXPOSITION

October 1-5, 1956

Textile Hall

Greenville, S. C.

9:00 A.M. to 6:00 P.M. daily

Laboratories; spindle lockwashers by Dubo; drawing frame condensers by Schofield.

S. F. V. Desmond
C. E. Watson
R. V. McPhail
John Wyatt
Ray Norman
Hugh Smith
Jesse Dodgen
E. E. Ball
Jerry Oswell

WATSON-WILLIAMS MFG. CO. 130
Milbury, Mass.
Exhibiting: M. P. shuttles for use with C&K multi-purpose looms; Walan shuttles with a dogwood center and a tough impregnated and laminated material on the outside which wears to an increasingly smoother surface and is non-splintering; Wahide shuttles which are similar to Walan, as a tough covering for dogwood center shuttles, and as an alternate to fibre covering on one, two, three, or four sides; regular dogwood shuttles.
Wilbur L. Watson, pres.
Hubert J. Watson, treas.
(See also Watson and Desmond)

WEST DISINFECTING CO. 352
42-16 West St.
Long Island City, N. Y.
Exhibiting: Floor cleaners, treatments, finishes and waxes; disinfectants; insecticides; liquid soaps; paper towels; industrial hand cleansing materials; protective creams and garments; antiseptic floor treatment (for dust control); iodine based disinfectants.
Chester Powell, br. mgr.
Harvey W. Anderson, br. mgr.
Wm. H. Pierson, asst. br. mgr.
J. O. Ross
Paul F. Noll
J. W. Kurfees
G. O. Wagoner
J. E. Bennett
J. F. Manning

WESTINGHOUSE ELECTRIC CORP. 444
East Pittsburgh, Pa.
Exhibiting: A new clutch type loom motor; new standard loom motor; new totally enclosed fan cooled lint-free motor; open int-free motor; three-point mounted loom motor; cotton card gearmotor; cotton card gearmotor and control; motor and control for Saco-Lowell Gwaltney spinning frame; Dynac controller used for breaking of a-c motors; new "Tri-Pac" unit—a circuit breaker with three protective elements; new loom switch panel where a group of 12 manual loom switches can be mounted in a gasket enclosure and protected by fuses or a breaker; multi-motor slasher drive; new reduced voltage starter 10-600 for use when across the line starting is not acceptable for induction motors.
F. T. Benner
W. H. Ballew, sales engr. Charlotte office
J. W. Rigdon, sales engr. Charlotte office
C. C. Smith, sales engr. Atlanta office
A. R. Hoke, sales engr. Atlanta office

WESTINGHOUSE ELECTRIC CORP. 444
Lamp Division
Bloomfield, N. J.
Exhibiting: High output fluorescent lamps; high lumen, 40-watt, pre-heat fluorescent lamps; 40-watt rapid start lamps which can be operated satisfactorily on preheat circuits that use starters; long-life incandescent lamps.
R. A. Corvey, reg. sales mgr.
Walter R. McKinney, Atlanta sales office
J. D. Mitchell, Atlanta sales office
James W. Johnston, Charlotte, N. C. sales office
Gene A. Bismarck, Greenville, S. C. sales office

WESTON ELECTRICAL INSTRUMENT CORP. 511
614 Frelinghuysen Ave.
Newark 5, N. J.
Exhibiting: Tachometer generators; tachometer indicators; loom ammeters, recording and controlling instruments; speed change sensing system; panel instruments; portable instruments.
L. Van Blerkom
J. W. Devine
Russe l Ranson
Grier Wallace, Jr.

WEST POINT FOUNDRY & MACHINE CO. 813
West Point, Georgia
Exhibiting: The Model 55 "Air-Dri" slasher which is designed to take almost the same space as the conventional big cylinder slasher; the "Multi-Cylinder" slasher with 30" diameter stainless steel cylinders for 35 psi steam pressure; the Griffin Size Application; the standard double-squeeze sizebox with pneumatic loading and rubber-covered squeeze rolls; a completely new slasher head end; an automatic 3-stage friction beam drive applicable to older slasher head ends.
R. L. Mundhenk, sales mgr.
R. V. Lee, sales rep.
C. G. Holt, sales rep.
J. H. McGee, sales rep.

WHITE & COMPANY 502
(See Parks-Cramer)

WHITIN MACHINE WORKS 818
Whitinsville, Mass.
Exhibiting: The "Even-Draft" drawing frame running at speeds up to 300 fpm; the new "Monarch" sliver-to-yarn spinning frame; two models of the Whitin-Schweiter "Fill-Master" automatic filling bobbin winder featuring a new exhaust device for removing fly and dust, a new variable layer locking traverse, and variable spindle speeds for each position; a novelty yarn twister equipped with a rocker motion, duplex splash attachment, and "C-1" novelty yarn attachment; a spinning frame equipped with the latest Whitin changeover assemblies and the "Unitrol" top arm weighting and new top rolls; repair and replacement parts.
R. G. McKaig, rep. sales mgr.
R. W. Rawlinson, asst. rep. sales mgr.
R. F. Waters, winder div. mgr.
C. M. Banks, superv. rep. sales
B. C. Grieb, mgr. Charlotte shop
Harry Moss, vice-pres.
J. H. Bolton, pres.
J. H. Bolton, Jr., vice-pres.
E. K. Swift, Jr., vice-pres.
R. I. McConnell, vice-pres.

WHITINSVILLE SPINNING RING CO. 208
Douglas Road
Whitinsville, Mass.
Exhibiting: Complete line of spinning and twister rings and accessories.
W. P. Dutemple, sales mgr.
G. T. Brown, sec.
W. K. Shirley, rep.
H. M. Jackson, rep.

WILKERSON CORP. 311
Englewood, Colo.
(See Industrialaire)

WINSOR & JERAULD MFG. CO. 337
1268 Eddy St.
Providence, R. I.

T. B. WOOD'S SONS COMPANY.....237
600 Fifth Ave.
Chambersburg, Pa.
Exhibiting: Variable speed drives; card drives; V-belt drives; timing belt drives; bearings.
R. C. Reese, asst. sales mgr.
E. L. Nuernberger, asst. chief engr.
Joe Seawel, salesman
E. R. Kleinlein, salesman

WRENN BROTHERS 825
4701 Pineville Road
Charlotte, N. C.
Exhibiting: Hyster fork lift trucks; Colson casters, floor trucks, and lifters.
J. Preston Wrenn
George L. Wrenn
Paul E. Wrenn
Tom Bromeling
E. F. Cail
Dan Dougherty
Bill Hoy
Frank Lil'y
Herman Pfeifer
Jim Reutt
Dick Ward

THE YALE & TOWNE MFG. CO.....822
11000 Roosevelt Blvd.
Philadelphia 15, Pa.
Exhibiting: The Model A lightweight hydraulic pallet hand truck; high capacity, lightweight hand hoists; a 2000-lb capacity gasoline-powered, pneumatic tire lift truck built especially for the textile industry.
N. C. Baker, adv. mgr.
P. R. Minich, gen. sales mgr.
J. H. Brown, pub. mgr.
C. Rooney, mgr. gas truck sales
F. Rau, mgr. hoisting equip.
(Also see Coleman Co.)

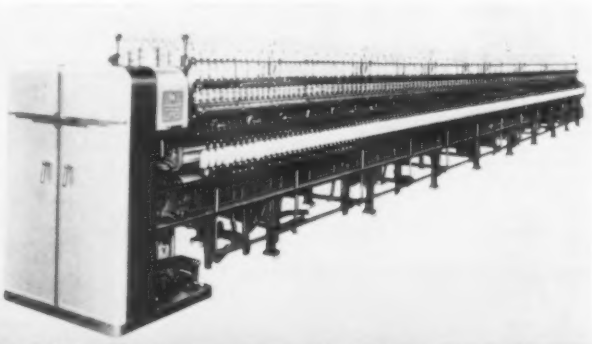
YEOMANS TEXTILE MACHINERY CO. .....Annex #6
P. O. Box 1661
Spartanburg, S. C.
Exhibiting: Scharer bobbin winders (quillers); Clark-Cutler-McDermott machinery mounting pads; National Plastics loom sheaves and tape tension idlers.
Charles L. Yeomans, pres.
Charles H. Turner, treas.
Elmer D. Schrader

ZINSER TEXTILM ASCHINEN.....130
Ebersbach-Fils, Germany
(See Watson & Desmond)

N. ZIVY & CIE 835
Basel, Switzerland
(See Stellite American)

Bifold model "Prest-O-Mat'c" industrial door unit will be featured by Clark Door Co.

The OM sliver-to-yarn large package spinning frame which Edward S. Rudnick will exhibit.



You can't play it by ear

Forecasting and budgeting are not only feasible, they're a vital necessity

by Edward J. Martin
Vice-President
John P. Maguire & Co., Inc.
Exclusive

THE SUCCESSFUL operation of a manufacturing business of any size is a difficult and delicate task, even in such prosperous times as we are now experiencing. This is particularly true in the textile industry, where in all its various branches the forces of competition are powerful, and where seasonal and style factors are of the utmost importance.

In a less complex industrial society than we know today, it may have been possible for the manufacturer to "play it by ear" and get away with it. But few are the business geniuses who, under modern conditions, can maintain such an excellent grasp of the essential elements of their business that projections, monthly financial statements, quotas, market studies, and all the other available business aids are unnecessary.

The commercial factor has made a real contribution to modern business by his insistence upon reasonably accurate estimates and forecasts on the part of those who come to him as clients. For many years, it has been the usual plaint of many manufacturers—some of them of substantial caliber—that to forecast their business with any degree of accuracy was impossible, and that systematic budgeting was out of the question.

In many instances it has been the factor's task to demonstrate the fallacy of this contention, and to prove by practical application that forecasting and budgeting are not only feasible, but can be practiced with a high degree of accuracy.

THERE IS a case history in our files (let us call it the case of the A.B.C. Textile Company) of a company that has been in business for several decades. Finding itself pinched for working funds, as a result of expanding sales, even though its over-all financial position was good, the company came to us for advice and help.

When asked about his budget, the president of the company flatly stated that, in his business, accurate forecasting was impossible. We insisted gently but firmly, however, that an attempt should be made to forecast the next six month's business and to budget accordingly as a first step to our handling the financial problem.

In view of the attitude toward budgets expressed by the client, and management's hesitant attitude toward formulating a forecast of what would happen to the business in the months ahead, it was necessary to work "from the ground up." This was done by seeking the cooperation of the principal department heads—i.e., sales, purchasing, production, and finance. Once the project was explained to them, these executives began to take interest and were able to provide figures that later proved to be amazingly close to actuality.

FIRST, the sales department prepared a statement of confirmed orders on hand and an estimate of probable additional bookings per month for the next six months. This estimate was based on a test of the market, initial customer acceptance of the season's line, and on an analysis of the company's experience over a period of years.

The production department then studied this order and sales budget to determine what had to be done in the plant to meet quantities and deliveries. A schedule of ordering and processing raw materials and supplies was set up, and from this the treasurer's department was able to determine what monthly cash payments must be made to satisfy suppliers on a prompt and discount basis.

THE TREASURER'S department also approximated weekly payrolls and corresponding withholding and social security tax payments (not an inconsiderable item today) according to an employment schedule based on a rate of plant activity necessary to meet the scheduled deliveries.

Cash outlays for selling and administrative expense were likewise calculated and placed on a monthly basis, together with other foreseeable expenses.

When all of these items of expense were set off against projected cash income from sales, it was possible to establish a projection of the company's probable cash flow, including bank balances and debit or credit balances with the company's factor.

And here was the crux of the company's problem, for it appeared upon analysis that, if estimates were correct, the company would require loan facilities from its factor in July and again in

Curtailment is far more economical than building excessive unsold inventory

August. In fact, it appeared that the company would be in the factor's debt in a relatively small amount at the end of July, but the loan in the account would stand at fairly substantial figures on July 15 and August 15, although by the end of August the account would again be back in a credit balance.

These mid-month substantial loans were occasioned by the fact that monthly trade obligations usually must be met by the 10th or 15th of the month, while sales are generally larger in the second half of each month.

Our company, as factors, was prepared to lend financial support to the account because:

First, the forecast showed that the funds were needed for seasonal build-up of sold merchandise and that loans would be liquidated within a relatively short time by the conversion of merchandise into sales.

Second, the integrity and ability of the management were known to be excellent.

AS A FURTHER GUIDE to the company's operations, budgets were prepared covering the company's purchase commitments and inventory position. Purchase commitments were budgeted on the basis of orders received or anticipated, and on the deliveries of raw materials and supplies necessary to meet manufacturing cycle requirements.

This activity was budgeted in order that raw materials and supplies could be carefully controlled to minimize the company's investment in these items, and to protect the company against price fluctuations. The inventory position was budgeted in order to focus attention on its fluctuations in relation to the unfilled order position.

The data thus accumulated made it possible to carry the forecasting procedure still further by constructing a projected profit and loss statement, and a projected balance sheet, showing the company's position at the end of each month. These figures, tied in together and taken in conjunction with each other, presented a fairly clear picture of the probable experience of the A.B.C. Textile Company over a six-month period.

The projections were not only adequate for the needs of management, but were most reassuring to those called upon to provide financial accommodation in order that the company might be supplied with cash funds as and when needed.

NOW, JUST WHAT is it that the factor seeks to accomplish for his client, by insistence upon forecasting and budgeting? First, of course, is the basic realization that, under present-day economic conditions, it is essential for management to adopt controls that measure performance, as well as warn of financial pitfalls, sufficiently in advance so that they may be avoided or their effects greatly minimized. This is merely the part of wisdom in a highly competitive industrial society where technological and other changes are taking place with increasing frequency.

Management must adopt controls that measure performance and warn of financial pitfalls

It is by these means that the factor can best assist his client, and at the same time, enhance his own ability to be helpful. Because of his intimate acquaintance with the operations of his client, as evidenced on the one hand by requests for funds and, on the other, by the flow of credit inquiries and actual receivables, the factor is in an excellent position to sense any deviation from normal — to keep constant check on the accuracy of the forecasts which have been made and the budgets established.

Where orders fail to measure up to budget figures and there are indications that forecasting has been too optimistic, the client is in a position to make prompt adjustments in purchasing and production schedules. Curtailment (even though loss of volume may make operations temporarily unprofitable) is far more economical than the building of excessive unsold inventory.

The client retains his well-balanced financial condition, prepared to enter the next season, perhaps with less working capital, but without a choking, unsold carry-over of last season's goods. Furthermore, budgeting focuses the attention of management on any accumulation of out-dated raw materials and supplies, and makes it possible to step up their disposal before mounting costs of storage, carrying charges, and insurance make the loss on sales still higher.

Budgeting points up the failure of management to meet its goals and provides a yard-stick of performance, whether good, bad or indifferent. Budgeting puts a spotlight immediately on rising production costs, on sales department performance, on dwindling margins of profit, and on the flow of cash funds.

IN SHORT, budgeting and forecasting take much of the guess work out of the length and depth of the financial assistance that will be required. Often they permit the factor to be more liberal in his financing than he might otherwise be, for he can anticipate periods of financial pressure and can meet them with confidence if he knows that they are justifiable and self-liquidating.

On the other hand, serious difficulties can be greatly minimized much to the advantage of the client, when the signals flash at the first hint of danger, for time under these circumstances is of the essence.

The best test of forecasting and budgeting as operational procedures however, is the reaction of those who employ them. Once a client of our company has been persuaded to adopt these techniques, he is himself invariably the most insistent that they be continued, even though his cash position may no longer require interim financing.

This is the true test of factor helpfulness and the foundation of client relationships that continue through the years.

All gears are removed from head end, cleaned, repaired, or replaced. Girls remove and scrub steel rolls. Aprons and top rolls are in a pan which rests on top of frame for ease of handling.

Top rolls are put in box and sent to roll shop for buffing. Plumbing spindles, aligning, and leveling the frames with the Guillet system is done once a year.

Train crews in sufficient numbers to meet maintenance demands and get

A balanced spinning overhauling schedule

Staff prepared Exclusive

THE GRANITEVILLE (S.C.) Company, has evolved an effective program for overhauling spinning frames. This schedule specifies the details of the job so that there are no extraneous tasks, although the job is done thoroughly and effectively.

All frames are overhauled each four months on a schedule which calls for the completion of three frames per day per crew. Each crew is made up of six persons, one man and five women. Every year the frames are lined, leveled (Guillet system), and the spindles plumbed. When this is done, seven operatives per crew are required.

The current overhaul system for spinning frames specifies the following:

1. Clean all steel rollers, and fix bad and loose necks.
2. Buff or replace all top rollers.
3. Clean all saddles and replace worn ones.
4. Replace all badly worn cap bars with new ones.
5. Level weight levers and replace worn lever screws.
6. Replace all worn gears, studs, and bearings.
7. Clean idlers and replace worn out blocks.
8. Clean roving rods and trumpets.
9. Clean bottom creels and guides.
10. Replace all broken stands.
11. Set roving traverse; take roving traverse down, clean thoroughly, and replace worn parts.
12. Clean ring rails.
13. Replace clearers that have clearer cloth off.
14. Set and straighten bad roving trumpets.
15. Clean all spindle whorls, top and bottom.
16. Tighten and clean all separator blades.
17. Blow and clean under all frames.
18. Clean all rust from steel rollers with pumice stone.
19. See that all saddles are properly weighted.
20. Take all gears and studs out of frame and clean thoroughly.
21. Replace all leaking oiling meter units.
22. Check all roller weight hook washers and replace any that are not standard equipment.
23. Pick under all spindles.
24. Clean all weight hooks.
25. Wash all cradles and aprons.
26. Clean all slats and top revolvers (clearers).
27. Level all levers with blocks.
28. Level and line frame and line stands each year.

Before the foregoing final schedule was adopted, the spinning overhaul job was "boiled down" to the elements listed below. This was a routine to be followed carefully and without deviation for any additional tasks that might occur or appear necessary during the work. The following routine, used during the development of the final schedule, was based on two frames per day for a crew of one man and four women.

1. Clean steel rolls and stands.
2. Clean and check all gears, bearings, and studs in head end.
3. Pick spindles (tops).
4. Clean ring rails.
5. Wash and polish creel.
6. Check oiling system.

Later, as this job became rou-

tine, it was found that additional items were necessary to keep the frames in maximum operating condition. These items were added to the routine without upsetting the schedule or extending the operatives. The semi-final schedule was as follows:

1. See that automatic oilers are working properly.
2. Replace worn gears and studs in head end.
3. Repair roving traverses and replace bad trumpets.
4. Scrub bottom creel board thoroughly.
5. Scrub ring rails.
6. Clean idlers and replace worn blocks.
7. Have cap bars scrubbed.
8. Replace all worn saddles.
9. Square top rollers to bottom steel rollers.
10. Pick under spindles.
11. Brush separator blades.
12. Scrub back bars.
13. Clean steel rolls and stands.

After an extended period of operation with the revised schedule of duties, careful observation indicated additional changes needed. These changes appear in the routine currently followed.

At the time the current schedule was first adopted it required the completion of two frames per day with five operatives per crew. Later, as this job became routine it was found that an additional frame could be completed with one additional operative.

It is now believed by the overhauling overseer, and all spinning room overseers alike, that the schedule presently used represents the optimum task designations. The job is done efficiently and with better results than were realized before the schedule was adopted.

Canadians find Jap mills are modern and efficient

● "THE WHOLE foreign trade policy of Japan is to use every possible device and bargaining position to promote exports and, at the same time, restrict imports to essentials." This observation is the main theme for a report just released by three members of the Canadian primary textile industry who last fall made the first visit by a group from a Canadian industry to its counterpart in Japan.

W. M. Berry, D. S. MacKay, and K. C. Mills have produced a 75,000-word, illustrated, indexed book with 31 appendices that is based on their study of Japanese business as related to the textile trade.

That the main business of all Japan today is a high-pressure export trade on which is based the fortunes of a steadily increasing population is obvious throughout the report. One conclusion however, is that "there need be no great concern about the future export achievement, and domestic prosperity, of Japan" if they continue to show the same trading nimbleness as during the past decade.

Japanese textile industry was found to be huge, modern, efficient, and, operating on low wages, capable of producing at low prices materials of acceptable quality.

A Japanese population of 89 million which is increasing by one million each year, plus limited arable land and a relative lack of some natural resources, is a basic influence on trade policy, the report notes. As a result, Japanese business, particularly export trade, is organized with government help to an extent not known in most Western countries. In contrast to American practices, trading monopolies and cartels are accepted instruments of trade "which have scarcely yet shown the results they will eventually produce."

Japanese competition on world markets, which low costs and desirable merchandise can easily produce, is restrained only by Japanese judgment of what penetration is possible without reprisals. "These judgments are based on the best appraisal they can make of how far they can progress without being forced by outside action to retreat," according to the report.

At the same time, strict import controls prevent importation of anything which can be secured in Japan, whatever the cost. This was said to give almost complete protection to Japanese industries, whatever their prices, efficiencies or profits.

The Japanese government looks to industry to absorb the 750,000 persons who come newly into the labor force each year. "The people are hard-working, intelligent, and used to a very simple livelihood. They have the drive and urge towards better living standards . . . further increases will be very slow and very gradual."

Manufacturing of textiles is still a major segment of the Japanese economy, employing 950,000 people or 34% of all workers in paid employment. Wages being the largest single cost involved in the production of textiles, the Canadian report deals at some length with wages and working conditions in the Japanese industry.

Average wages, including benefits, of 14.9 cents per hour are eagerly sought, as living conditions within company compounds are better than those enjoyed by the average Japanese. Females, 85% of the total, generally work for five years before leaving to marry, and males enter a company expecting to stay their working lives.

Machinery and manufacturing techniques in the Japanese textile industry were thoroughly investigated by the visiting Canadians who found nothing lacking. "Mills are thoroughly specialized for economical production with volume of production exceeded only by the U.S." Most Japanese textile machinery is made in that country and it is used with efficiency and economy; plants are well built, well organized, and relatively low in cost; labor is willing, deft, and highly productive.

Merchandising and distribution

(Continued on page 303)

Waumbec makes its own U-F resin

Automatically controlled process cuts costs 50%

by O. R. Benson
The Foxboro Co.
Exclusive

UREA - FORMALDEHYDE is a finishing material used in crease- and crushproofing on practically any fiber or fabric. It finds other uses in permanent embossing, and on "wash and wear" cottons. When applied to cloth, urea - formaldehyde controls shrinking, gives dimensional stability and fabric crispness, and, in the case of rayon, increases wet strength.

Using 1500 gallons of urea-formaldehyde per day in its finishing operations, Waumbec Dyeing & Finishing Co., Inc., Manchester, N. H., decided to abandon U-F carboy purchases and install an automatic system to manufacture the finish in quantity. The result: a dramatic 50% saving in the first nine months of operation.

Working with instrument engineers of the Foxboro Co., Waumbec officials, including chief chemist A. O. McNulty, tackled the U-F make-up problem with two objectives in mind. First, to design a system of sufficient capacity to permit bulk purchases of urea crystals and formaldehyde. It was felt that the investment in such a system could be amortized in a very short time on the savings resulting from bulk versus carboy purchases.

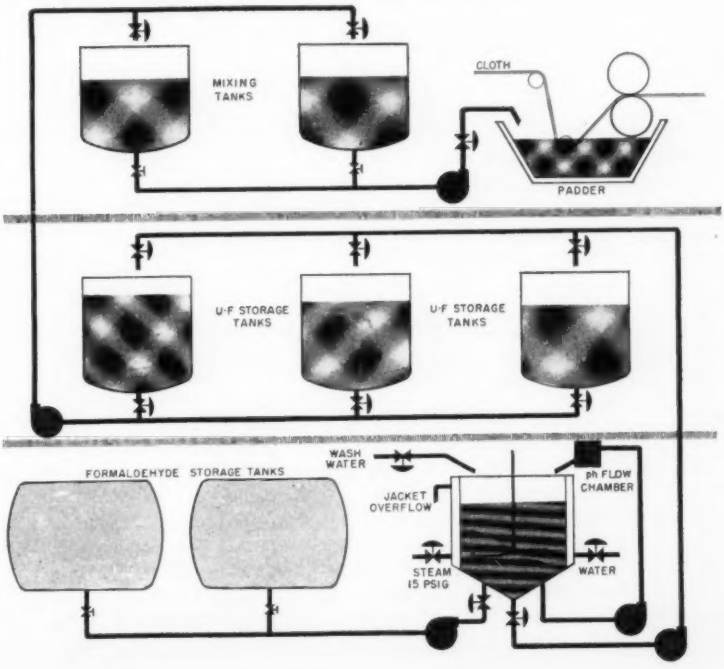
Second, the system should be as automatic as possible. Unless automatically and precisely controlled, the many variables involved, such as time, temperature, pH, and quantities of chemicals could adversely affect both the formulation and the treated fabric. Additionally, continuous measurement and accurate control would avoid overloading operating personnel with greater responsibilities or more strenuous duties.

The system that met these objectives is diagrammed in Figure 1. Bulk purchases of formaldehyde —enough for approximately forty 500-gallon batches—are stored in two 8000-gallon storage tanks. After make-up in the reactor (jacketed for steam and water), the urea-formaldehyde is pumped into one of three 1300-gallon storage tanks. These tanks are drawn upon as necessary to replenish mixing tanks in the finishing room, where auxiliary agents such as waterproofing or softening compounds are added.

All of this equipment is controlled and operated from a single five-foot instrument cabinet, centrally located in the make-up room (Figure 2). It is interesting to note that in the full sequence of urea-formaldehyde manufacturing operations, only three steps require manual effort. These are the addition of urea crystals, sodium bicarbonate, and dilute acetic acid. The remaining operations are either done automatically under instrument control or are operated by pushbutton. Signal lights keep the operator advised as to the progress of each batch.

Before a new batch can be made up, a panel light marked "Fill" must be on, assuring the operator that the reactor has been washed out and is ready for use. A safety arrangement makes it impossible for him to fill the reactor without

Figure 1. Waumbec U-F make-up equipment is located on the first floor, with formaldehyde storage tanks and reactor installed in a pit. From U-F storage tanks (center) finishing room operator can draw-off quantities as needed for third floor padders.



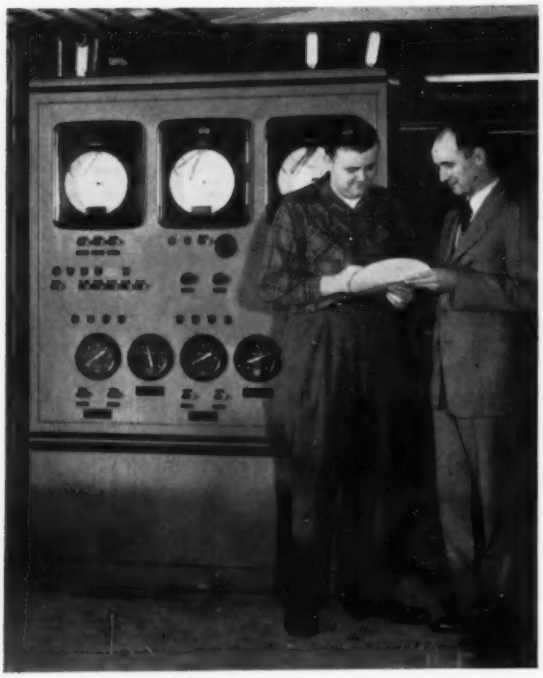


Figure 2. Waumbec Chief Chemist A. O. McNulty, discusses instrument chart recorder with K. L. Barton, Jr., Foxboro instrument engineer. Instrument cabinet in background contains: top row, left to right—a liquid level controller for reactor level, a dual pH recorder-controller for sodium bicarbonate and acetic acid additions, and a dual temperature controller for reactor jacket and mix temperatures. Below signal lights and pushbuttons are liquid level gauges for storage tanks.

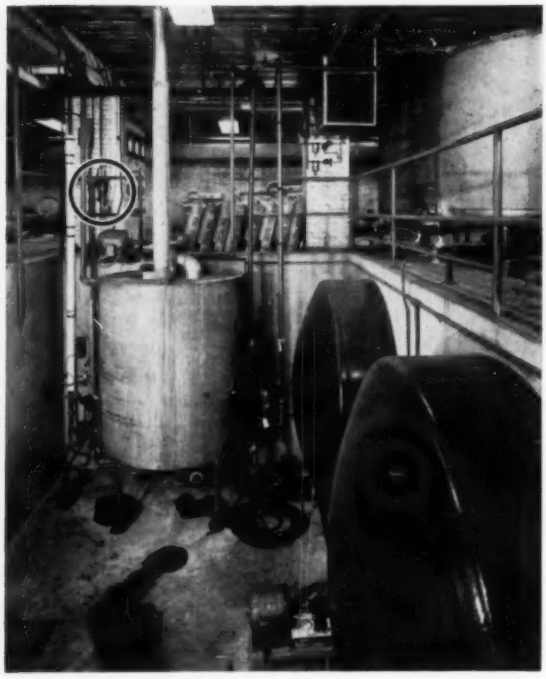


Figure 3. In pit are reactor (left) and formaldehyde storage tanks. Two of the three U-F storage tanks can be seen on upper level. Operation of all equipment is controlled from instrument panel at left. Note pH flow electrode assembly (circled). Bulk purchases of formaldehyde—enough for approximately forty 500-gallon batches—are stored in the two formaldehyde storage tanks. After make-up, the urea-formaldehyde is pumped into one of the three 1300-gallon U-F storage tanks.

prior washing. By pushing a button marked "Fill," he opens a valve in the line from the formaldehyde storage tanks and starts pumping formaldehyde into the reactor.

When the formaldehyde in the reactor approaches the level ultimately desired, a liquid level controller automatically cuts in, regulating the formaldehyde valve. Filling continues until the desired level is reached, at which time the pump automatically stops, the valve automatically closes, and a signal light indicates "Filled." Neither the pump nor the valve can operate again until the reactor has been emptied and washed.

By switch and pushbutton, the operator then starts the pH sample pump and the reactor agitator, adding sodium bicarbonate until the record on the pH controller reaches a pH value of 8. At this point a "Start" light indicates that make-up can proceed.

Additional controls, signal lights and pushbuttons carry the manufacture of U-F through the fourteen additional steps required to complete the reaction, drain the

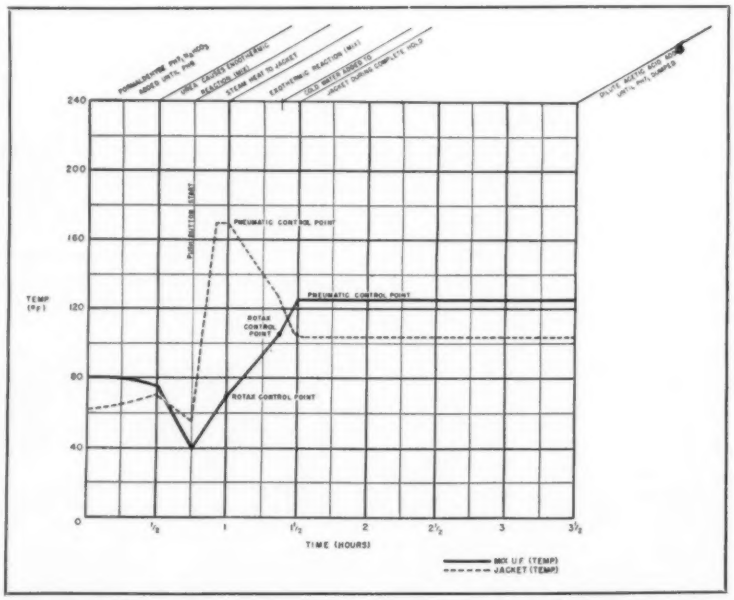


Figure 4. Graph shows progress of mix temperature and reactor jacket temperature during successive stages of make-up.

reactor, fill the storage tanks, and wash the equipment in preparation for the next batch.

A separate instrument panel was installed in the finishing room on the second floor to provide a control station for draw-off from the storage tanks. On the panel are three liquid level indicators, one for each storage tank, keeping the finishing room posted on the gallons of finish available. In addition, the liquid level signal lights under each indicator can be seen throughout the room.

To fill the mixing tanks from which the padders are supplied, the finishing room operator pushes a button on the panel, starting the drain pump in the line from the storage tanks and opening the drain valve of whatever tank supplied the previous draw-off. If that tank is empty, the system automatically selects a full tank for immediate drainage or waits until one of the three is refilled. A second pushbutton stops the draw-off pump and closes the drain valve.

The first batch of urea-formaldehyde was made by the new system on February 9, 1955; the installation has been in constant operation since and has given excellent performance and results. The three batches needed daily could be made during a single eight-hour shift if sufficient storage capacity were available. For this reason, a fourth storage tank is under consideration.

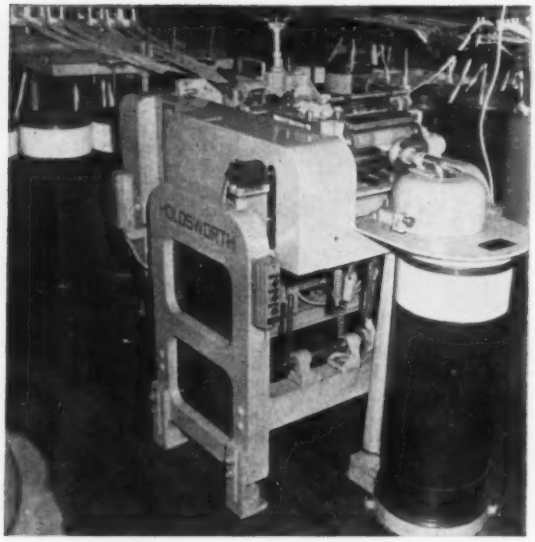
In evaluating the results of the installation, Waumbec officials stress not only the reduction in chemical cost and the quick write-off of the investment in equipment and instrumentation, but also the fact that in-plant U-F manufacture would have been impractical without the automatic system.

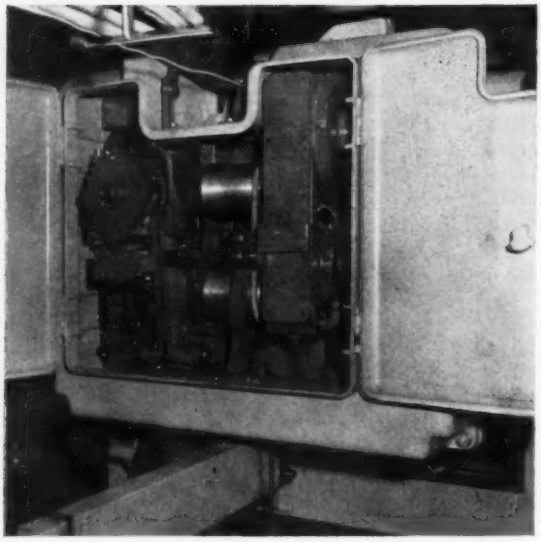
In addition, there are the benefits to mill personnel. Carboys of urea-formaldehyde need no longer be handled and stored. Padders are filled remotely so that direct contact with formaldehyde fumes is avoided. Most important to mill efficiency is the fact that each formulation is precisely executed for uniform processing and is available in the large quantities required. With make-up handled internally, Waumbec is assured of enough solution of the correct strength to produce the quality finish required for its products.

Do you know what yarns knitting mills buy?

One of TI's editors compiled this list of some of the commonly used ones, along with their end-uses

Composition	Yarn Counts	Use
Combed peeler, natural, bleached, dyed Mercerized combed peeler, natural, bleached, dyed Carded peeler, natural, bleached, dyed	14/2 - 60/2 14/2 - 120/2 14/2 - 40/2 10/1 - 40/1	socks, tubular
Mercerized carded peeler, natural, bleached, dyed	14/2 - 40/2	
50-50 Orlon, Dacron, or 100% of either in spun or filament form in most counts	to order	decorative, for any type of socks
70-30 Orlon, Dacron 60-40 Orlon, Dacron	to order	
Acetate, space dyed, filament or spun Acetate, dyed	to order	decorative
Filament nylon, dyed most colors	to order	f-f heel, welt
Stretch nylon	to order	socks, hose
Orlon and wool, 80% 3d 3″ staple (about 40% high bulk) and 20% 64s quality wool	29 - 32 (worsted counts)	tubular, jersey, outerwear
Orlon, regular 2d and 3d 3″ staple	single or ply 15½ - 34	children's sweaters
Orlon, 100%, containing about 40% high bulk		tubular outerwear
Orlon, 4½d high bulk and 3d regular	to order	men's sweaters
Acrilan, 60% regular, 40% high bulk (approx.)	to order	ladies' jersey outerwear and interlock
50-50 cotton and filament nylon with 2½-3½ tpi	8 - 10	argyles
2 ends of 200d stretch yarn combined with sufficient cotton for desired counts	8 - 10	socks
Cotton 80% long staple and 20% nylon 3d 1 9/16″ staple Cotton 90% long staple, 10% 3d acetate 1½″ staple Cotton 80% long staple, 20% 3d 1 9/16″ Orlon either high bulk or regular	24 - 28 18/1, 40/1 30	tubular
Nylon, 15d monofilament, 30 and 40d multifilament	to order	tricot, underwear, slips
Acetate, 55d and 75d multifilament		tricot, underwear, slips
Bemberg, 50d, 55d, and 75d multifilament		tricot, underwear, slips
Viscose, 75d		tricot, underwear, slips
Cotton combed peeler yarns	50 - 60	tricot, men's underwear,





Drafting 8 at Autoleveler while putting in 2400 grains per yard and taking out 300. Cone pulley drive (right photo) controls the speeds of the creel, measuring rollers, back rollers, fallers, and in doing so maintains even weight of sliver delivered.

Cut doublings and count variation

The Autoleveler eliminated one gill reducer at this worsted yarn mill

Staff prepared Exclusive

ONE SOUTHERN worsted mill has cut doublings and reduced yarn count variation simultaneously by using a Raper Autoleveler on a gill reducer. This mill was running wool and Orlon on the worsted system, and on three test lots obtained the results shown in Table I.

The biggest advantage of the Autoleveler is claimed to be that it will even out a variation in weight fed of plus or minus 15%. For example: If in feeding the Autoleveler 2400 grains (12 ends up of 200 grains per end) and one end broke, the machine would continue to run with the weight delivered remaining the same as before the end broke, according to a mill spokesman.

In this instance, the Autoleveler delivered approximately 300 grains at 1%-1½% variation per yard on a weight basis. This machine permits cutting out one process, and reduces long term variation. Instead of using four reducers, the mill uses the Autoleveler and two reducers. The Autoleveler does not reduce short term variation.

The unit in use in this mill has a large measuring roller (1¼") to permit feeding heavy stock at 3000 grains per yard. The range of the machine runs from a minimum of 2000 grains per yard to a maximum of 4000 grains per yard. A draft of 8 is used here while putting in 2400 grains per yard and taking out 300 grains per yard.

On the next operation, instead of putting six ends up (which is normal), three ends of 300 grains each of Autoleveled stock are fed, giving a total of 900 grains. This amounts to one half the normal doublings without any loss in uniformity. The resultant benefits include labor savings and reduction of floor space requirements by one half. Cans used in this mill are 15" x 36", the common size.

When the Autoleveler is set for zero tolerance, plus or minus 15% is the limit allowed for weight fed. If runouts occur from the rover (giving off-weight stock), this stock can be fed into the Autoleveler instead of being thrown into waste. Usually the weight fed varies to plus or minus 6%, thereby allowing approximately plus or minus 9%, which permits adding "waste" sliver.

In trying to obtain a 95-grain end at the first operation after Autoleveling, eight tests showed an average of 94.8 grains—better than is usually obtained. Normally, about 5 to 8 grains variation was encountered at the second breaker operation (without Autoleveler), and this had to be compensated for by doublings in the succeeding or finisher operation. In trying to obtain 62-grain sliver at the finisher operation, eight tests revealed a variation of 0.6 grain from high to low while actually producing a 62-grain end.

This mill usually blends Orlon

and wool, using a 3" average staple, and the yarn produced is far above average in quality, appearance, and uniformity. Management here has accepted the Autoleveler as a worthwhile addition to the processing machinery, despite the fact that standards were already so high that any improvement was difficult to achieve.

TABLE I

Test	Equipment Used	No. of Tests	Skeins per Test Lot	Worsted Counts	Variation in Yarn (%)
A	Autoleveler	24	8	32	1.5
B*	Gill Reducers and	19	8	29.5	1.9
C*	Pin Drafters	27	8	31	1.8

*Tests B and C did not use Autoleveler (run on gill reducers and Pin Drafters) and had 50% more doublings before reaching the slubbers.

Industry's 1955 accident frequency rate up over 1954's

● WITH AN accident frequency rate [the number of disabling injuries per million man-hours] of 5.07 and a severity rate [total charges (in days) per million man-hours of work] of 422 for the year 1955, the textile industry occupied thirteenth and fifteenth places respectively among the forty major industries of the nation reporting, the National Safety Council's new "Accident Rates" booklet states.

The average frequency rate for all industries was 6.96, and average severity rate was 815; so, in each category the textile industry was above the average. In 1954 the frequency rate for this industry was 8% better [4.71] and the severity rate 22% worse [540].

The best accident frequency rate within the textile industry was .42, and it belonged to the knitting mills; the worst was 11.42 for the woolen mills. In cotton mills the frequency rate was 3.40; dyeing and finishing plants, 6.28; carpet and rug manufacturing, 6.53; and cordage manufacturing, 5.73.

Forstmann Woolen Co. of Passaic, N. J., holds the best all-time no-injury record of any textile mill known to the Council. With a total of 13,624,000 man-hours of operation without an injury, Forstmann ranks seventh among the 40 major industries of the nation.

The Trion, Ga., division of Riegel Textile Corp., had the best no-injury record of all cotton mills reporting (10,495,544 man-hours). Others were: carpet and rug manufacturers, Collins & Aikman Corp. Plant B, Philadelphia, Pa. (5,135,346); silk and rayon mills, Burlington Mills Corp., Bristol (Tenn.) Weaving Plant (6,292,821); dyeing and finishing, Sayles Biltmore Bleacheries, Inc., Biltmore, N. C., (6,353,269); cordage manufacturers, Martha Mills, Thomaston, Ga., (5,183,192); knitting mills, Hanes Hosiery Mills Co., Winston-Salem, N. C., (4,154,444).

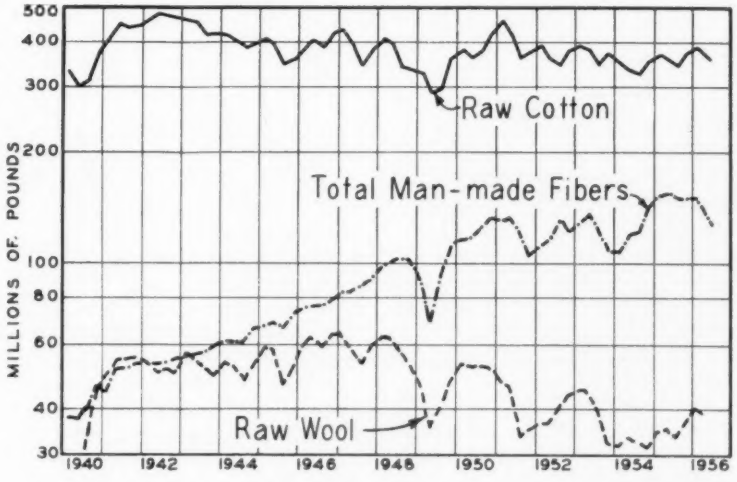
U. S. fiber consumption 1940-1956

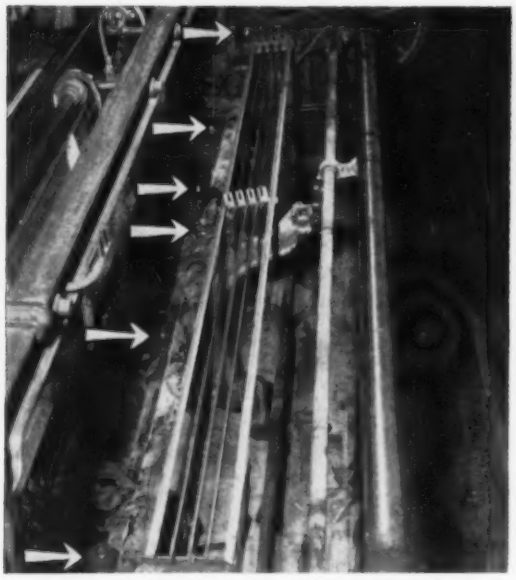
● UNITED STATES consumption of raw cotton, man-made fibers, and wool from 1940 to mid-1956 is shown on the accompanying ratio scale chart which was prepared from a more extensive chart published recently by the Textile Economics Bureau.

Equal vertical distances show equal percentage changes. The lines represent average monthly consumption during each quarter and are plotted at the end of the quarter.

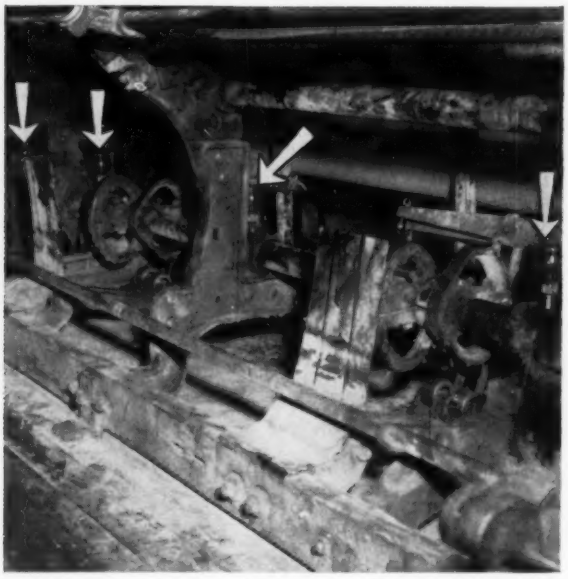
Note that the consumption of raw cotton has remained fairly steady since the Korean War peak of 1951. Cyclical variations considered, the consumption of raw wool has trended downward from 1948 forward.

To keep the chart simple, only the total man-made fiber curve is reproduced here. However, rayon and acetate yarn consumption has continued steady since 1948, cyclical changes excluded; rayon and acetate staple use shows an upward trend, especially since 1953; and consumption of the non-cellulosic man-made fibers and glass fiber continues to increase.





Each loom is equipped with eight oilers (five on the camshaft and three on the crankshaft). Arrows point to six of them.



View behind loom showing bottle oilers on four of the camshaft bearings.

Bottle oilers, in extending lubrication interval from 8 hours to 6 weeks,

Minimize hand oiling and cut oil consumption

Staff prepared
Exclusive

ONE prominent southern cotton mill has installed several thousand bottle oilers on processing machinery after tests indicated worthwhile savings in oil and labor.

This mill equipped all cards with bottle oilers on cylinder bearings, licker-in bearings, doffer bearings, and doffer comb bearings. A number of oilers were tested for a year before adoption.

Formerly, an oil can was used to serve the oil holes once every eight hours for the card cylinder bearings, and twice a week on doffer bearings. Now the oil bottles are filled every four to six weeks with attendant labor savings. Additional savings are realized in that there is practically no waste. Oil consumption has been cut by one third.

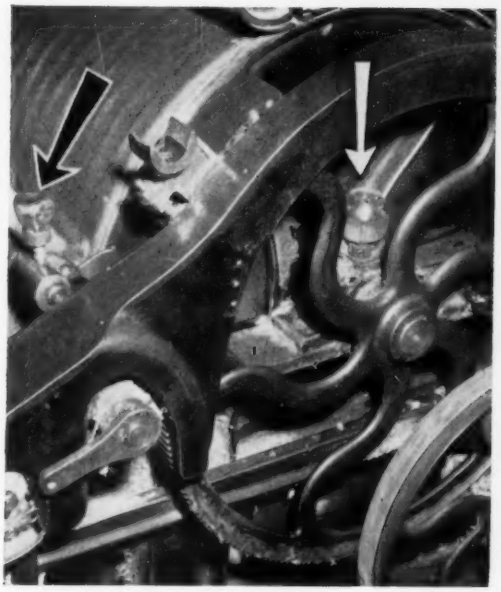
The installation on cards was so impressive that bottle oilers were also installed on overhead line shafts in the card room. This solved the problem of dripping dirty oil, hazardous climbing for the oiler, and eliminated hot bearings occasionally caused by oil starvation when oil holes were used.

Bottle oilers were placed on the jack shaft bearings on all slubbers. These machines are equipped with automatic one-shot lubrication systems, and the installation of the bottle oilers eliminated hand oiling from the only point at which hand oiling was being done. The results are reported excellent.

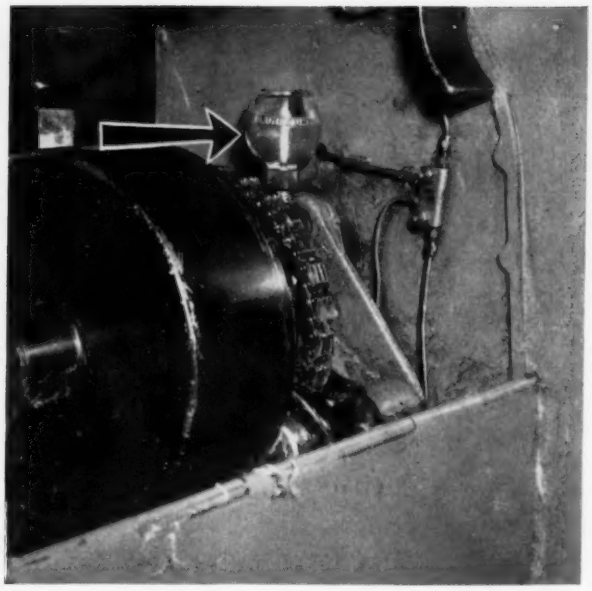
EACH LOOM carries eight bottle oilers; there are five on the camshaft and three on the crankshaft. Formerly, the looms were lubricated manually once each week. Now the oil bottles are refilled at three-month intervals, and there is little opportunity for an oiler to soil the warp trying to gain access to oil holes. Quality thereby benefits noticeably.

On looms, bottle oilers are removed, cleaned, refilled with fresh oil, and replaced at three month intervals. This schedule of cleaning prevents clogged oilers, oxidized oil, and subsequent difficulties. Broken bottles are replaced, and repairs are made as needed on this schedule.

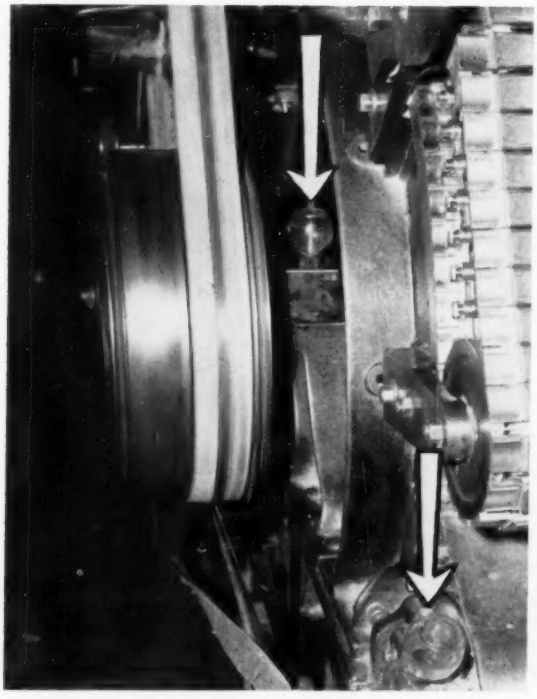
Oiling schedules in the weave room were revamped entirely only after careful study and tests with the bottle oilers in place. Lubrication engineers called into the mill checked a representative number of bearings by removing the caps and examining wear surfaces



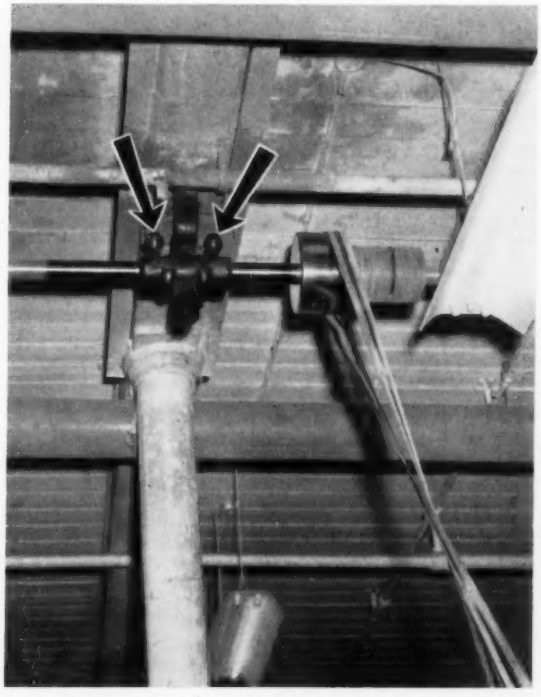
Cards are equipped with bottle oilers on doffer bearings and doffer comb bearings.



Jack shaft bearings on slubbers are now lubricated by bottle oilers. Note tubing for centralized lubrication of other bearings.



The licker-in and cylinder bearings on the cards are also equipped with bottle oilers as shown here.



Bottle oilers on the line shafts in the card room solved the problem of dripping dirty oil and hazardous climbing.

visually.

Every bearing checked showed evidence of having received sufficient lubrication from the bottle oilers and showed no apparent sign of wear. After an extended period of further operation, the lubrication engineers were again called in for similar tests and observations. The results found in the first tests were duplicated.

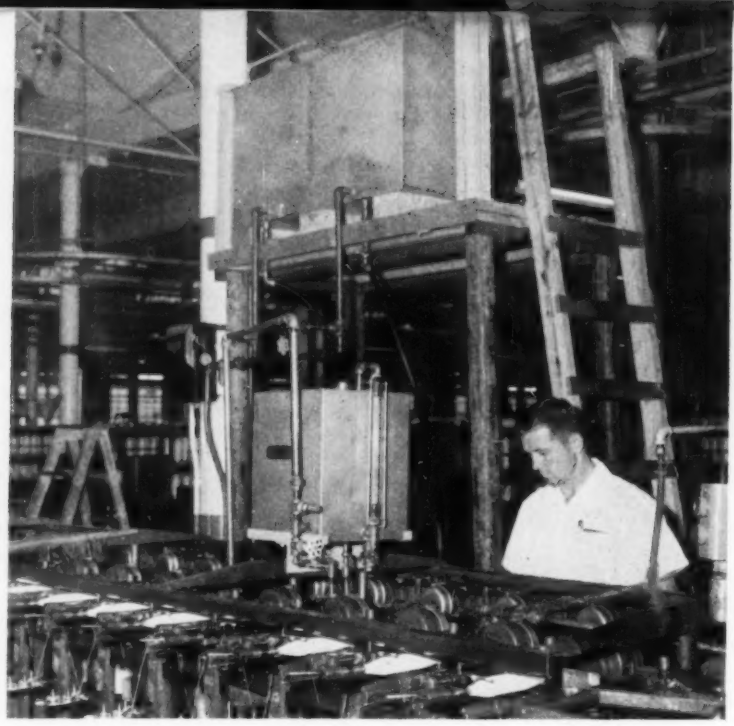
This mill is convinced that bottle oilers are efficient, safe, and economical to use. Cost of the oilers was amortized easily within six months, according to a spokesman for the mill. Lunkenheimer supplied the oilers used in this mill.

Better pickup control,

less tangling,

cleaner yarn,

are features of this



Yarn conditioning attachment for quillers

Staff prepared
Exclusive

TWO ABBOTT quillers at the Chesnee (S. C.) Mills plant of Reeves Brothers, Inc., have been equipped with yarn conditioning attachments. These units have been in operation about one year with good results.

Cleaner yarn, less tangled yarn, better control over pickup, and more uniform conditioning are evident with the new equipment, according to a spokesman for the mill.

Formerly, 17s to 40s singles were conditioned on equipment which permitted the loose ends to become tangled to such an extent that battery fillers were losing too much time straightening out tangles at the looms. Also, quill butts dirtied a considerable amount of yarn in the conditioning process. Quill rings got wet and rusted; and this rust also became an undesirable contaminant to the yarn.

The conditioning attachments on the quillers do not wet the quills or quill rings; only the yarn gets wet, thereby precluding the likelihood of soiled yarn from dirty wet quills.

Visual examination of quill packages conditioned by the old method indicated that some bobbins were soaked while others were inadequately treated. The average was from 6% to 14% pickup on all counts of yarn conditioned (19¾% was the extreme high). The new equipment is giving an average of about 10% pickup, which is easily maintained with adjustments provided on the attachment.

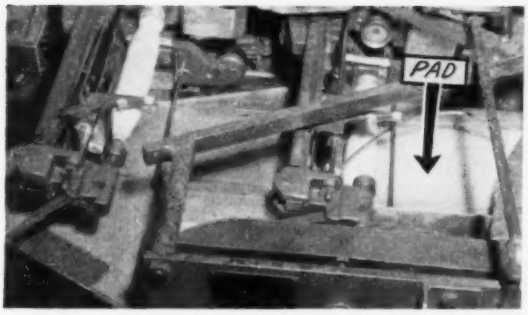
According to experience at this mill, the investment was easily amortized within a year in terms of labor savings; however, the attachment was purchased primarily to effect an improvement in quality. Goods leaving the grey mill are now much cleaner.

Filling must be conditioned in this mill because the weave room does not have sufficiently close control of humidity, air change, and other conditions. Conditioning the filling assures good running work on the models E&K 40-46″ looms running sateens and poplins, according to mill management.

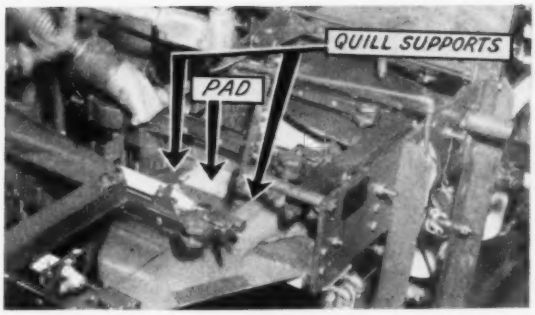
MAINTENANCE poses few problems. Periodically (about once each week), the blanket has to be removed from the conditioning attachment for cleaning. This consists of rinsing off (under a cold-water faucet) the accumulated lint. The operation requires about 10 minutes.

The apparatus is applicable to any Abbott quiller, except the radial model. The cost is approximately $500 per machine.

The attachment includes an absorbent pad located in the discharge plate on the quiller. The absorbent pad is kept moist by a tube connected to a reservoir which holds a supply of condi-



Quills are conditioned (left) by contacting the absorbent pad (arrow) located in the discharge plate on the quiller. The pad is kept moist by a tube connected to the reservoir containing the conditioning fluid.



The quill contact with the pad is adjustable. Track supports (see arrows right) keep quill butts and tips from contacting the pad with subsequent soiling.

tioning fluid. The reservoir is kept filled from a central mixing tank.

The central tank holds about 100 gallons for two quillers and has to be refilled about twice each week. The tanks are washed out prior to refilling to assure cleanliness and trouble-free operation.

An adjustable metal plate located over the pad regulates the amount of contact between the bobbin or quill of yarn and the pad, thereby controlling the amount of pickup. The correct setting to obtain the desired amount of pickup must be determined by trial and error and experience.

STATIC IS being controlled in nylon filament yarns by another unit in use in the Gerrish Milliken Mill in Pendleton, S. C. The application also doubles as a twist setter (up to 30 tpi).

After more than six months of use in this mill, the attachment continues to give satisfactory service with a minimum of maintenance and adjustment.

The Pendleton plant formerly used individual wick-type oil applicators on each individual unit on the quiller. These were a nuisance to keep filled with oil, and the wicks were quickly damaged by the cutting edge of the nylon yarn.

The conditioning attachment has eliminated all the old troubles of housekeeping and labor required to fill the 140 containers with oil and service the wicks.

The application of oil to the individual strands of yarn during the quilling operation also affected tensions adversely. Furthermore, two types of potent oils had to be mixed and applied because of the nonabsorbent properties of the nylon.

Oil costs have been reduced approximately one third as a result of the change to the conditioning attachment and improved saturation. Another advantage emphasized at this mill is that the conditioning fluid does not touch the quill and cause subsequent soiling. Only the anti-static agent is now applied; two oils were formerly required to accomplish the same results.

Quality has been improved considerably; seconds have been reduced about 1%, despite the fact that they were already at a low level. Efficiency has also improved approximately 1%. The resultant saving has permitted amortizing the cost of the attachment easily inside of six months, an excellent investment in this instance, according to a management official at the mill.

The conditioning attachment, called "Monarc," is supplied by Mona Industries, Inc.

85 more wet process plants in 1954 than in 1947

● IN 1954 there were 726 plants in the United States engaged in the finishing of textiles (except woolen and worsted textiles and knit goods)—a 13 per cent increase over the number when the 1947 Census of Manufactures was made.

There were 80,000 employees (a 3 per cent increase over 1947) with a payroll of $295 million (35 per cent greater than the 1947 figure).

Other statistics contained in a recently issued advance 1954 Census of Manufactures report on this segment of the industry are:

1. Value of shipments was $1,011 million, a 90 per cent increase over 1947.

2. Cost of materials, fuel, etc., was $545 million, a 217 per cent increase.

3. Value added by manufacture (value of shipments less cost of materials, fuel, etc.) was $466 million, a 30 per cent increase.

4. New capital expenditures were $22 million, 27 per cent less than the amount spent in 1947.

5. 7,407 million linear yards of cotton broad woven goods were bleached, dyed, and printed during 1954, 7 per cent more than in 1947—3,180 million linear yards were bleached and white finished (a 12 per cent decrease), 2,308 million plain dyed and finished (a 31 per cent increase), and 1,919 million printed and finished (a 22 per cent increase).

6. There were 2,187 million linear yards of man-made fiber and silk broad woven fabrics bleached, dyed, and printed, an 11 per cent increase over 1947—of this total 210 million yards were bleached and white finished (6 per cent more), 1,659 million plain dyed and finished (17 per cent more), and 318 million printed and finished (10 per cent less).

Need a good accident investigation plan?

Here's one that works . . . 5 million man-hours without a lost time injury proves it

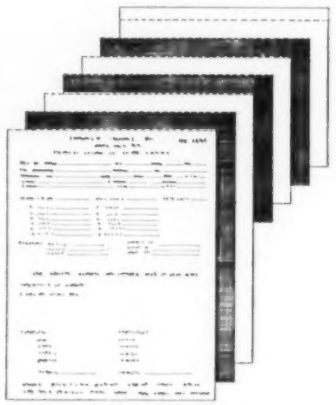
by Emerson R. Boner
The Chemstrand Corp.
Extract*

COMPLETE, accurate, and prompt reporting of all injuries is essential to an organized accident prevention program. Besides assuring that employees receive prompt treatment for the injury, the reports provide a basis for corrective action of the basic cause and all similar hazards in the plant. The summary of information from injury reports highlights particular accident trends to which safety efforts may be directed and also serves as a measure of the effectiveness of the safety program.

The information derived from an investigation of each accidental injury serves as an aid in preventing similar accidents in the future. If lack of a thorough investigation results in the selection of the wrong basic cause with the resultant selection of the wrong means of preventing similar accidents, then the injury report loses much of its value from an accident prevention standpoint. Likewise, the value is reduced if the wrong basic cause is selected due to lack of understanding of the meaning of each basic cause.

It is true that several factors can contribute to an accident, and it is sometimes difficult to single out the one which contributed the most, but it is essential to isolate it. This can be done by a thorough investigation of the train of events leading up to the accident, keeping in mind that *the basic cause is the defect, or action, or lack of action, that should be corrected to prevent a recurrence.* Contributory

*From paper presented before the Southern Safety Conference held in Atlanta, Georgia.



The injury report form reproduced below is completed for every injury. At left is the front of the form; at right, the back. To expedite handling, the report is executed in quadruplicate. Sketch at right shows how sheets are gathered with carbons for convenience of the typist. Note that sheets 3 and 4 are copies of the top half of the form only.

THE CHEMSTRAND CORPORATION
PENSACOLA, FLORIDA
REPORT OF INJURY TO EMPLOYEE IN COURSE OF EMPLOYMENT

No. 5376

DATE _____

NAME OF INJURED _____ AGE _____ BADGE NO. _____
JOB CLASSIFICATION _____ DEPARTMENT _____ AREA _____ SHIFT _____
DATE AND TIME OF INJURY _____ ASSIGNMENT _____
LOCATION _____ BLDG. NO. _____ FLOOR _____
WITNESS _____ ARRIVED FIRST AID _____ DEPARTED _____

PART OF BODY (CHECK)	TYPE OF INJURY (CHECK)	MEDICAL REMARKS
☐ 1 Head	☐ 1 Abrasion	
☐ 2 Face	☐ 2 Bruise	
☐ 3 Arm	☐ 3 Burn, chemical	
☐ 4 Hand	☐ 4 Burn, thermal and elec.	
☐ 5 Finger	☐ 5 Fracture	
☐ 6 Torso	☐ 6 Foreign Body	
☐ 7 Leg	☐ 7 Infection	
☐ 8 Foot	☐ 8 Laceration	
☐ 9 Toe	☐ 9 Sprain	
☐ 10 Eyes	☐ 10 Skin Irritation	
☐ 11 Respiratory	☐ 11 Fume Exposure	
☐ 12 Back	☐ 12 Blister	

DISPOSITION: RETURNED TO ASSIGNED JOB _____ SENT HOME _____
RETREATMENT REQUIRED _____ ESTIMATED LOST TIME _____ DAYS
LIGHT DUTY RECOMMENDED _____

CLASSIFICATION: SUB-MINOR _____ SUB-MAJOR _____
MINOR _____ MAJOR _____ SIGNED _____
SIGNATURE OF DOCTOR OR NURSE

ALL INJURIES, REGARDLESS OF THEIR NATURE MUST BE REPORTED ON THIS FORM

TO BE COMPLETED BY IMMEDIATE SUPERVISION DATE _____

1. DESCRIBE FULLY HOW ACCIDENT OCCURRED.

AGENCY (CHECK ONE)

☐ 1. Machines
☐ 2. Elevators
☐ 3. Boilers, pressure vessels
☐ 4. Vehicles
☐ 5. Power transmission apparatus
☐ 6. Electric equipment
☐ 7. Hand tools
☐ 8. Chemicals
☐ 9. Flammable and hot substances
☐ 10. Dusts
☐ 11. Containers
☐ 12. Materials, parts, etc.
☐ 13. Other _____

TYPE OF ACCIDENT (CHECK ONE)

☐ 1. Striking against—generally refers to contacts with sharp or rough objects resulting in cuts, slivers, etc.
☐ 2. Struck by
☐ 3. Fall on same level
☐ 4. Fall on different level
☐ 5. Caught in or between
☐ 6. Slip or over-exertion resulting in strain, hernia, etc.
☐ 7. Inhalation, absorption (asphyxiation poisoning, etc.)
☐ 8. Contact with electric current
☐ 9. Foreign body in eye
☐ 10. Contact with hot substances—temperature extremes
☐ 11. Surface contact with irritating substances
☐ 12. Other _____

IT IS ESSENTIAL THAT ALL QUESTIONS BE ANSWERED FULLY IN ORDER TO ASSIST THE SAFETY SECTION IN COMPLETING REQUIRED INDUSTRIAL ACCIDENT REPORTS AND IN PREVENTIVE ACCIDENT PLANNING.

2. WHAT WAS THE BASIC CAUSE OF THE ACCIDENT? (SELECT ONE BASIC CAUSE. MARK WITH A √ — CIRCLE CONTRIBUTING CAUSES)

A—Supervisory Responsibilities	B—Personal Action or Characteristic of Employee	C—Unsafe Equipment or Materials	D—Unsafe Conditions
☐ 1. No instructions given.	☐ 1. Haste or short cuts.	☐ 1. Ineffectively guarded equipment.	☐ 1. Poor light.
☐ 2. Incomplete instructions.	☐ 2. Equipment such as jacks, skids, hoists, etc., provided but not used.	☐ 2. Unguarded equipment.	☐ 2. Poor ventilation.
☐ 3. Rules, standards or instructions not enforced.	☐ 3. Goggles, respirators, masks, etc., provided but not used.	☐ 3. Defective materials.	☐ 3. Bad housekeeping.
☐ 4. Personal safety devices not provided on job. (Goggles, Safety Belts, Masks, Respirators, etc.)	☐ 4. Improper or unsafe tool or equipment used.	☐ 4. Defective tools.	☐ 4. Improper piling or storing.
☐ 5. Correct or safe tools or equipment not provided.	☐ 5. Horseplay or fooling.	☐ 5. Defective equipment (not motor vehicles)	☐ 5. Tools, equipment or materials, scattered around.
☐ 6. Inadequate inspection of equipment or jobs.	☐ 6. Instructions or rules disregarded.	☐ 6. Defective motor vehicle equipment.	☐ 6. Slippery floors or other places.
☐ 7. Improper method of doing work.	☐ 7. Inattention.	☐ 7. Unsafe equipment or material of contractor, non-employee or customer.	☐ 7. Unsafe condition caused by contractor, non-employee or customer.
☐ 8. Poor job planning.	☐ 8. Inexperience.	☐ 8. Improper type or poor design.	☐ 8. Faulty layout of plant or facilities.
☐ 9. Too much rush.	☐ 9. Physical condition of employee.		☐ 9. Exits or emergency escapes inadequate or not provided.
	☐ 10. Improper body position.		
	☐ 11. Improper method of doing work.		
	☐ 12. Action of fellow employee.		
	☐ 13. Improper clothing.		

3. STATE IN DETAIL WHY YOU SELECTED THE ABOVE BASIC CAUSE.

4. WHAT IMMEDIATE ACTION DID YOU TAKE TO PREVENT A RECURRENCE AND WHAT DO YOU RECOMMEND AS STANDARD PRACTICE OR PHYSICAL CORRECTION TO AVOID ACCIDENTS OF SIMILAR NATURE? (NOTE: SUCH ANSWERS AS "NOTHING" "MORE PRECAUTION" "BE CAREFUL" ARE NOT ACCEPTABLE.)

5. DAMAGED MACHINE, TOOL OR MATERIAL _____ ESTIMATED COST _____

TIME LOST BY EMPLOYEE _____ BY SUPERVISOR _____ OTHER EMPLOYEES _____

ROUTE THROUGH LINE SUPERVISION TO DEPARTMENT HEAD

IMMEDIATE SUPERVISION _____
SIGNATURE AND DATE

DEPARTMENT HEAD _____
SIGNATURE AND DATE

REVIEWED BY _____
SAFETY SECTION AND DATE

causes should be mentioned when the reasons for selecting the basic cause are stated.

We use the following four categories and list of basic causes for assigning responsibility to injuries:

A. Supervisory Responsibilities

1. No instructions given.
2. Incomplete instructions.
3. Rules, standards or instructions not enforced.
4. Personal safety devices not provided on job (goggles, safety belts, masks, respirators, etc.)
5. Correct or safe tools or equipment not provided.
6. Inadequate inspection of equipment or jobs.
7. Improper method of doing work.
8. Poor job planning.
9. Too much rush.

B. Personal Action or Characteristic of Employee

1. Haste or short cuts.
2. Equipment such as barrel trucks, skids, hoists, etc., provided but not used.
3. Goggles, respirators, masks, etc., provided but not used.
4. Improper or unsafe tool or equipment used.
5. Horseplay or fooling.
6. Instructions or rules disregarded.
7. Inattention.
8. Inexperience.
9. Physical condition of employee.
10. Improper method of doing work.
11. Improper body position.
12. Action of fellow employees.
13. Improper clothing.

C. Unsafe Equipment or Materials

1. Ineffectively guarded equipment.
2. Unguarded equipment.
3. Defective materials.
4. Defective tools.
5. Defective equipment (not motor vehicles).
6. Defective motor vehicle equipment.
7. Improper type or poor design.
8. Unsafe equipment or materials of contractor, non-employee or customer.

D. Unsafe Conditions

1. Poor light.
2. Poor ventilation.
3. Congestion.
4. Improper piling or storing.
5. Exits or emergency escapes inadequate or not provided.
6. Faulty layout of plant or facilities.
7. Tools, equipment or materials scattered around.
8. Slippery floors or other places.
9. Unsafe condition caused by contractor, non-employee or customer.

INJURY AND NEAR-MISS INVESTIGATION REPORT NO......
Date.....
To: (All Supervision) or (Concerned Supervision)
Subject: Investigation of.....Accident in.....
Dept. & Unit

Summary: A concise statement of not more than 6 or 7 lines stating the day, the time, the location and the nature of the accident, the operator involved, the extent of his injuries, the treatment of the patient, and an approximation of the lost time involved should be given under this heading.

Accident Classification: This should be enumerated as follows:

1. Name
2. Department
3. Occupation
4. Experience on the job
5. Operation being performed
6. Equipment involved
7. Type of accident
8. Mechanical cause
9. Basic cause
10. Type of injury
11. Parts of body involved
12. Time of accident
13. Date of investigation

Description of Accident:
This should consist of a chronological description of the events occurring and conditions existing just prior to, during, and following the accident that were in any way related to the accident or that will assist in giving a clearer understanding of the exact nature of the occurrence. This should be given in considerable detail, but limited to a statement of facts only, not conclusions drawn as a result of unsubstantiated theories.

Accident Investigation:
This should cover all information gathered by the investigating committee in considerable detail. It should include statements of witnesses, past history of the injured if it affects the accident, and any other information gathered during the course of the investigation.

Accident Cause:
The factors, as determined by the investigation committee, that were responsible for or contributed to the accident, should be thoroughly covered in this section.

Extent of Injury:
The extent of the injury should be covered fully in this paragraph in language that can be understood by all. In most cases, this will consist of interpreting the plant physician's findings on the injured.

Equipment Damage:
If the accident is of such a nature as to have involved equipment in addition to the injury to the man, this should be detailed under this heading.

Recommendations:
These recommendations should be the result of the investigation by the committee making this report. Any measures to correct both the direct cause and any contributing cause to the accident should be covered. If corrections are already made or under way the report should reflect this.

Personnel:
Listed under this heading should be the names and occupation of all personnel involved either as witnesses, supervision or colleagues of the injured.

Investigating Committee

.....
.....
.....
.....
Chairman

Cleared with Plant Manager.....
Date

Here is the format or outline utilized for preparation of the accident investigation report.

However, in investigating an accident and assigning a basic cause, the foreman should first consider if there were things which he, as a supervisor of men, could and should have done before the accident occurred. In other words, he should review each basic cause under Category A above before considering the possibility of placing it under one of the other three basic causes listed.

Written Report of Every Injury. The injury report form reproduced in the accompanying illustration is completed on every injury. This

form is initiated in the plant dispensary where the doctor or nurse on duty will fill in the top half of the page. A very important part of this form is that all these forms initiate in the plant dispensary and that the reports are issued numerically so that the Safety Section can check to be sure that they get a copy of all reports after an investigation has been made.

Whenever possible, the original sheet will be returned by the injured employee after his treatment, to his immediate supervisor. When this is not possible, the original sheet will be forwarded immediately by mail to his immediate supervisor.

The third carbon copy (half sheet) shall be held and all reports forwarded once daily to the plant manager's office.

The injured employee's immediate supervision shall complete the injury report form in detail as indicated and route the form through their supervision to their department head for approval. The department head will check the information, approve the report, and forward it to the safety office for recording and tabulating within a total elapsed time of 48 hours.

Serious Injuries Are Investigated by a Committee. In addition to this report, an investigation committee is appointed on all serious injuries. The order of the investigation is as follows:

a. The committee will first meet briefly for an explanation of their responsibilities and a review of all available facts on the incident to be investigated.

b. They will then visit the scene of the accident and investigate the physical causes and other pertinent information at the site.

c. All witnesses to the accident will be interviewed and their names noted and brief notes on their statements will be recorded by the chairman.

Injured personnel will be interviewed if the plant doctor is of the opinion that their condition will so permit. Otherwise, interviews will be delayed until permission is obtained from the plant doctor.

The plant doctor will be interviewed; and if the injury is such that lost time is expected, the doctor's estimate of the time of recovery and his description of the extent of the injury will be included in the committee's report.

d. When the investigation has been completed, the committee will agree tentatively on their analysis of the basic cause of the accident and their recommendations to prevent recurrence. The chairman will organize the committee's notes and act as a spokesman for the committee. The committee, plus the head of the department where the accident occurred, shall report immediately to the plant manager or the assistant plant manager for a review of the accident. A roundtable discussion of the accident will take place to be sure that all present are in agreement on the matters surrounding the accident and representatives of the department involved in the accident are thoroughly in accord with the findings and recommendations in order that there be no misunderstanding or omissions in the preventive measures to be taken.

e. Following agreement on the findings and recommendation of the committee, the chairman will prepare a final draft of the report. (See box on page 185 for the format to be used in preparation of the accident investigation report.) The report will be forwarded to the service department.

Copies of the complete report on major accidents will be issued to the plant manager, assistant plant manager, department superintendents, plant engineer, members of the investigating committee, and other individuals to whom a complete report would be advantageous. An abstract of the report to contain all recommendations will be prepared by the safety section and circulated to all other members of supervision.

On sub-major, minor, sub-minor or near-miss investigations, complete reports will be sent as above, but abstracts will only be sent to members of supervision who have an interest in the particular type of problem.

Each report will be serially numbered and will be issued promptly after completion of investigation.

f. The service department will be responsible for immediately posting a short edited statement of lost time injuries on all bulletin boards.

g. The head of the department concerned with the injured employee or damaged equipment will make a personal verbal report to the plant manager as soon as the facts surrounding the accident have been determined. This discussion with the plant manager will, in many instances, take place before the investigating committee has had an opportunity to make a formal investigation. The purpose of this discussion is to keep the plant manager personally informed as soon as possible after such incidents.

h. It will also be the duty of the head of the department in which the accident occurred to report in a brief memorandum to the plant manager and service department on the action taken on the recommendations of the committee. If the recommendations have not been followed, an explanation should be given. This report should be made within one week of the time of the accident. If all recommendations have not been followed at that time, a supplementary report should be made at the time all recommendations have been answered.

In conclusion, corrective action can only be taken when the facts have been developed through knowledge of the incident and the basic cause determined and corrected.

Easy-to-dye fiber makes easy-to-care-for fabrics

Plans for commercial production of a new synthetic textile fiber have been announced by The Dow Chemical Company. The staple fiber, developed by Dow research men, will be marketed under the trade name of "Zefran" (rhymes with "Jeff Ran").

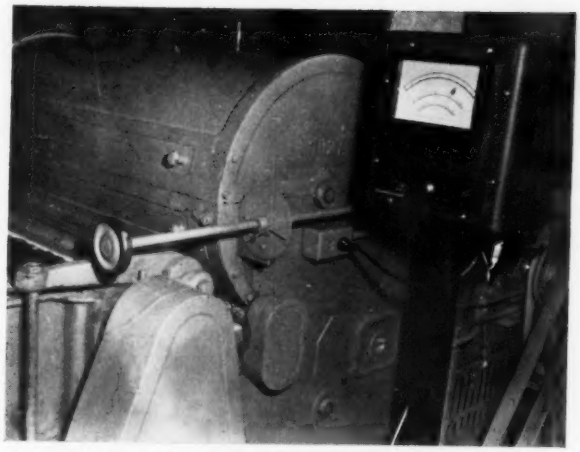
Dr. Leland I. Doan, Dow president, said Zefran combines in one fiber a wide range of the better properties of other fibers, both man-made and natural.

"For example," he said, "it combines the ease of care properties of synthetic fibers with the exceptionally versatile dyeing characteristics of cellulosic fibers such as cotton or rayon.

"Added to these characteristics are good initial whiteness, good bleachability, wear resistance and resistance to rot and chemicals, freedom from serious pilling tendencies, and excellent dimensional stability when exposed to elevated temperatures."

This combination of properties suggests that Zefran will be of interest to manufacturers of most classes of textile goods, including work clothes, play clothes, suitings, and other apparel fabrics, draperies, upholstery fabrics, and heavy industrial fabrics.

Dr. Doan said Zefran will be available in forms (staple length, denier, crimp, etc.) suitable for economical and efficient processing by the common systems.



The exact position of the instrument is not important to its operation. It is recommended that it be placed on either side of the picker, facing the delivery end, and far enough back to be out of the way of the picker tender.

Mill simplifies yarn count control

A 66% reduction in the number of gear changes required in the card room is attributed to use of a sensitive moisture measuring device in the picker room

Staff prepared Exclusive

IN AT least one southern textile plant yarn counts are not the least impressed by what the weatherman predicts or is forced to record. Whatever the weather introduces in the way of heat, cold, parching winds, saturated winds, etc., is offset in the plant by small weights (¼-lb graduations) hung on the lap scales as the changes occur.

Between the weather and the weights is an electronic control called the "Moisture Monitor"* (TEXTILE INDUSTRIES, May 1955, p. 161). Speedily it senses any changes in the cotton's moisture content, and indicates on its dial the size weight needed to correct for the moisture content of a full lap.

Since the installation, some 10 months ago, the gear changes necessary for yarn count control have been reduced to approximately one-third the pre-installation figure. Because of the sensitivity of the unit, there has been a ten-fold increase in the number of corrections made at the lap scales. However, the increase is not objectionable.

The change at the lap scales involves only the speedy switching of small weights. The reduction in down time at the drawing process and at the fly frames renders insignificant the added weight manipulations.

EACH DAY a sample is taken from a newly-made lap and bone-dried to determine the actual moisture content:

$$\text{Per cent moisture content} = \frac{\text{Original weight minus bone dry weight}}{\text{Original weight}}$$

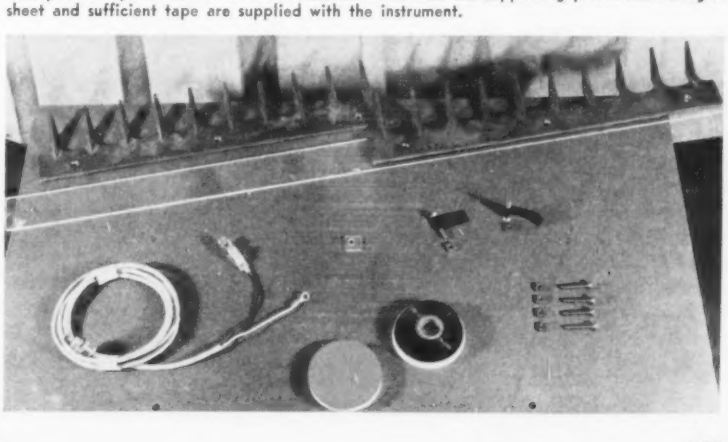
This quantity is translated into terms which can be checked against the dial reading under which the lap was formed. An average variation between the dial reading and the laboratory finding approximates 0.1 per cent.

The maximum variation experienced is 0.2 per cent. To assure uniformity, laps are taken from the pickers in rotation.

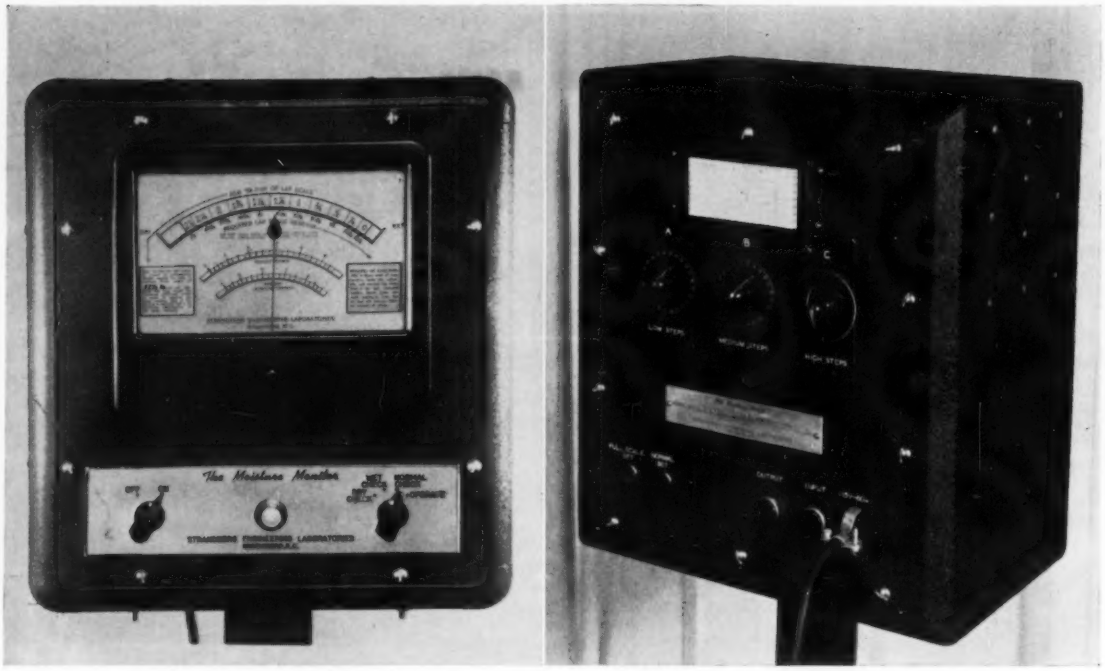
Repeated laboratory tests confirmed management's theory that, for this plant, the blending methods in use were presenting stock of uniform moisture to all pickers. As a result, only one unit is needed to monitor the several pickers.

An adjacent picker is equipped

Picker installation materials are shown in the photo below. Note that bolts are insulated with plastic tape so that contact will not be made with the supporting plate. The Plexiglas sheet and sufficient tape are supplied with the instrument.



*The Kendall Company Research Laboratories initiated the project to build the Moisture Monitor. Strandberg Engineering Laboratories, upon invitation, participated by developing the electronic portion.



Front (left) and rear (right) views of the Moisture Monitor, showing the dial and the control knobs for calibrating the unit.

to receive the unit whenever it becomes necessary. At such times the change is quickly made.

An innovation introduced at the plant was to apply separate colors to the relatively wide graduations on the indicator dial. The weights used on the lap scales are colored to correspond to the dial colors. Thus it is easy for the operative, as well as for supervision, to glance at the dial and match a "red" weight with a "red" reading.

THE UNIT is mounted on a post alongside the picker near the calender rolls. The split-lap preventer is insulated from the picker.

One-half this section is wired to the Moisture Monitor. A second lead from the control unit to the picker frame completes the other half of the circuit. The unit can be attached to rake assemblies as well.

The presence of moisture in cotton varies the resistance to electric current in proportion to the amount of moisture present. It is this resistance that the MM senses and translates into units of weight pertinent to lap formation. The detection takes place beween the split-lap preventer and the top calender roll.

The 55% RH maintained in the picker room has no effect on the MM readings except as the humidity changes the moisture content of the cotton. If the moisture is not in the stock, it is not recorded.

No one detergent good for all home laundering, USDA says

● A NEW bulletin, "Detergents for Home Laundering," which was recently issued by the U. S. Department of Agriculture to help homemakers select the best detergents for their laundry needs, should be of interest to textile industry personnel. It describes the types of soaps and synthetic detergents available at retail and gives research-based information on their suitability for different kinds of fabrics and amounts of soil to be removed.

No one detergent suits all home laundering tasks, says Textile Chemist Margaret S. Furry of USDA's Agricultural Research Service, author of the bulletin. The kind of fabric, its colorfastness, amount of soil, and hardness of water used—all help create a demand for different types of these cleaning agents in the well-stocked laundry cabinet.

Following are some specific recommendations given:

1. For laundering wool, silk, or blends of these with other fibers, use unbuilt synthetic detergents;

2. For fabrics of cotton, linen, and man-made fibers, if white or colorfast, use either soaps or synthetic detergents — unbuilt for slightly soiled materials and built for those more heavily soiled; if fabrics are not colorfast or when uncertain about it, use unbuilt synthetic detergents;

3. For general laundering and for heavily soiled fabrics, use built soaps or built synthetic detergents.

Collective bargaining

by Ringgold Arden
Exclusive

LAST JUNE a New York newspaper published a picture which must have been a shock to orthodox adherents of the established ritual for conducting a Collective Bargaining session. This picture showed the most important Collective Bargaining negotiations of the year being carried on without the sacred "Bargaining Table."

Just who first introduced a table as a prop in the ancient practice of Collective Bargaining is not known, but it seems that the table was introduced by some relatively modern labor union man, and it has become a sort of fetish with the labor unions. Practically every reference to labor disputes in the public press has inevitably included remarks about the "Bargaining Table."

Whether this table was thrown in by some astute early labor leader as a means of confusing the issue and disguising the true nature of Collective Bargaining, or whether it was a sort of symbolical labor union altar on which the bargainees were supposed to heap their propitiatory offerings, we do not know.

Certainly, however, for many years this "Bargaining Table" has been inseparably associated with the practice of Collective Bargaining as operated by labor unions; and in an important series of negotiations regarding the annual raid on the public pocketbook by the bargainers, it was somewhat of a surprise to see that some Radical had done away with this principal feature of such a meeting.

COLLECTIVE Bargaining is of course a very ancient custom, and its origins are shrouded in the mists of antiquity. It probably started when two neolithic men discovered that by presenting a united front they could more readily persuade a third man to part with something of value which they coveted, and which he wished to keep. Through the ages it has been the most popular method of getting what groups of people decided they wanted. Notable examples of collective bargaining have been memorialized in song and story.

What is said to be the first motion picture produced in the United States dealt with a Collective Bargaining session. The highlight of the picture showed a scene somewhat like the one of the hassle between the United Steel Workers and the representatives of the steel industry. There was no table in this picture, and the bargainers were simply lined up to one side and the bargainees on the other.

The picture, as we remember it, did not give the name of the bargaining group. It might possibly have been the United Road Agents. The chief bargainer was a gentleman by the name of James, who was quite a prominent figure in Collective Bargaining for a number of years in the western portion of the United States. The bargainees were erstwhile passengers on a Missouri Pacific train.

This Mr. James seems to have been a Collective Bargainer of great virtuosity, who thoroughly understood the fundamental principle of Collective Bargaining, which is never to make your demands until you have collected enough force to assure the bargainees being in no position to resist them. A dramatic moment in this picture occurred when one of the bargainees, dissatisfied with the terms offered by the bargainers, sought to leave the meeting. We do not remember now whether they buried him along the railroad track or put him in the baggage car to be delivered to his family. Aside from this untoward incident, the bargaining session passed off according to schedule, and the bargainees, as graciously as possible, met the demands of the bargainers, which after all is the proper conclusion of a Collective Bargaining session.

One or two women did make a fuss about giving up their wedding rings, but the dedicated Collective Bargainer can not be diverted from his purpose by maudlin considerations like this. A Collective Bargainer who is working on the steel industry, for example, must not be influenced by the fact that he is increasing the prices of refrigerators, baby carriages, roller skates, and other things commonly desired by working people less fortunate than those he represents.

ALTHOUGH the aims of Collective Bargaining have altered very little through the centuries, there have been some outstanding instances which have become firmly rooted in history. One case which has dwelt in the popular imagination for centuries had to do with the activities of a Mr. Robin Hood. The name of his organization has not been preserved, but it was probably something like the Amalgamated Sherwood Foresters. Mr. Hood felt that the wealthy persons of Nottinghamshire and surrounding counties had dealt unfairly with the poor, and at convenient intervals he not only bargained with them for giving up some of what they had extorted from the local peasantry; but to the amazement of all concerned, instead of keeping the fruits of his bargaining for himself and his associates, as has always been customary where Collective Bargaining is practiced, he returned much of it to the people whom the rich had looted.

This one peculiarity shown by Mr. Hood has embalmed his memory in history. Such an action would be equivalent to the Steelworkers' Union extorting through

the steel manufacturers money from their customers, and then refunding it to the customers. This shows that there were probably no psychiatrists in Mr. Hood's day.

Another notable example of Collective Bargaining as practiced in ancient times involves a gentleman by the name of Brennus, who was the chief bargaining agent of the United Gaulish Tribes. Just as the members of a modern labor monopoly, when they have become too deeply entangled in installment payments, descend upon their employers and demand money to be extorted from the public, these Gauls, when hard up, used to turn for relief to the wealthy Romans. In one famous Collective Bargaining session between Brennus and representatives of the Roman Government, he made a remark so peculiarly descriptive of the science of Collective Bargaining that it remains to this day in European histories and in unabridged dictionaries.

The prop in this case, instead of the "Bargaining Table," was a pair of scales. Into one pan of the scales the Romans were heaping their wedding rings, necklaces, bracelets, and other items of value which appealed to the Gauls. During the proceedings, the Romans were so ill-advised as to claim that Brennus had sneaked an extra weight onto the other pan of the scales after the amount of the ransom had been agreed upon. This is the equivalent in modern parlance of upping the demands after the bargaining session has begun. Brennus was so incensed by this evidence of bad faith on the part of the Romans that he tossed his sword, which was evidently a pretty massive affair, into the pan with the weights, and said to the delegation from the Roman Senate, "Vae victis," which, being translated into modern American, means, "Heaven help the bargainee."

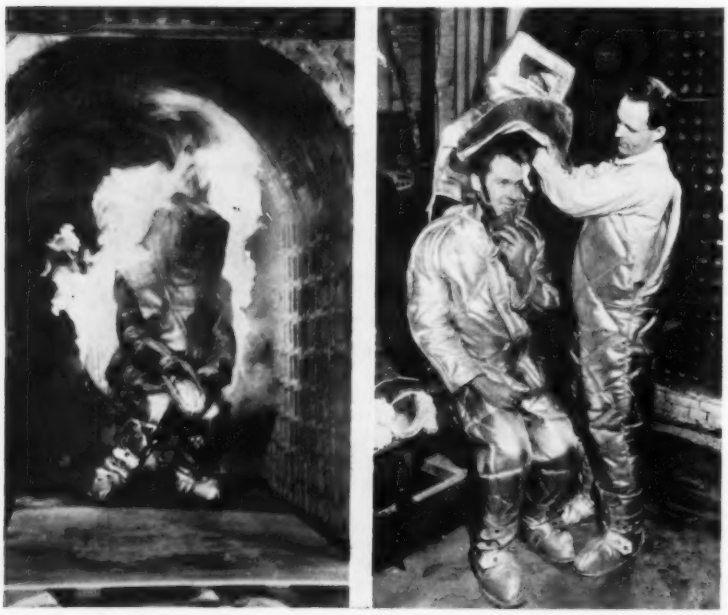
Since Brennus, Hood, and James acquired fame by introducing a new quirk to the ancient science of Collective Bargaining, perhaps the man who did away with the "Table" in Collective Bargaining as practiced by modern labor unions will one day be famous. Just as great men like Washington and Jefferson have simple inscriptions on their tombs, perhaps the future traveler will stand before a modest but impressive monument with a name upon it and the simple inscription, "He abolished the Bargaining Table and put Collective Bargaining back on an honest basis."

ORDINARY bargaining can of course take place between any two persons or groups of persons, but this must not be confused with

Aluminum-coated fabric lets man work in 1200 F furnace

● A SUIT that enables a man to work in temperatures one-eighth as hot as the sun's surface was demonstrated in New York recently. According to a report of the incident, the demonstrator six times entered an industrial furnace heated to 1,200 F, staying two or three minutes each time as if on a repair or rescue mission.

"He took in a wicker arm chair and sat in it while it burned."



The demonstration, sponsored by Minnesota Mining and Manufacturing Co., was held to show the heat-protective qualities of fabrics coated with a thin layer of aluminum, a process developed by 3M.

The aluminum-coated fabric* reflects radiant heat instead of insulating against it. This permits less bulky insulation, it was explained, so that a man can move and work at exceptionally high temperatures to repair, investigate, inspect, rescue or extinguish.

To demonstrate the intense heat from which he was protected, an engineer wearing the aluminum-coated suit walked into the 1,200-degree oven carrying an armload of wood which burst into flames

*Aluminized garments now being manufactured include fire-fighting coats for firemen; long-coats, aprons, spats and gloves for steel workers; coats, suits, gloves and helmets for stand-by fire-fighting equipment in industrial plants; quilted suits with aluminum-coated fabric exteriors for use in industrial ovens and furnaces; suits for emergency personnel at airports, oil fields, and other locations where emergency action can save time, money and lives; and other garments designed for specific "hot jobs" in specific industries.

Collective Bargaining. In ordinary bargaining, each party to the negotiations is perfectly free to break them off at any time without penalty. That is, if a steelworker goes into a store to buy a shirt and is dissatisfied with the price of it, he is perfectly at liberty to go elsewhere looking for a suitable shirt at a price he is willing to pay. It would never occur to the clerk in the shirt store to assault the customer and force him to take the shirt; nor would the customer, upon the refusal of the clerk to cut the price, go home and get his shotgun and come back to the store to renew the bargaining with the assistance of a load of buckshot.

The essential feature of ordinary bargaining is that both parties are absolutely free to agree or disagree without any penalties, hard feelings, or personal or property damage.

It will be seen at once that this has absolutely nothing whatever in common with Collective Bargaining. Whereas in ordinary bargaining there are offers and counter offers until either agreement or disagreement is reached, in Collective Bargaining the proceedings are never opened with an offer, but with a demand. This seems to be one of the most fundamental distinguishing differences between the two types of bargaining.

In Collective Bargaining you do not make offers, but demands, and the primary concern of the successful Collective Bargainer is that before making his demand he is in a position to enforce compliance. Nothing looks any sillier than a frustrated Collective Bargainer with his ears pinned back.

Furthermore, in ordinary bargaining the object is to agree upon an exchange of values acceptable to both sides in the bargain. In Collective Bargaining no such foolishness as this is even considered. The object of Collective Bargaining is to collect, and any resistance on the part of the bargainee must be considered futile and temporary. For the bargainee to get anything out of the negotiations would be a situation too horrible to contemplate.

According to the ritual, however, the fleeced bargainee is always supposed to express himself as satisfied with the outcome of the negotiations. He then has no alternative but to wring the necessary tribute from his customers, but he can claim a lot of credit with the customers for having gone through the motions of trying to protect their pocketbooks, even though he knew all the time he couldn't do it.

We must now leave for the time being this fascinating subject.

---

while he held it. He returned with a sheet of steel wool which flared almost immediately, and then a manikin wearing a fireman's rubber fire-fighting coat and another wearing ordinary street clothes, both of which burned while he was unaffected. He took in a wicker armchair and sat in it while it burned [see left photo on p. 190].

"Nine-tenths of the heat is reflected away by the aluminum coating," D. J. Bennett, the demonstrator said, "and the little heat that gets through is dissipated by the layer of glass fiber quilting beneath the aluminum coating. The only heat I feel is the accumulation of my own body heat."

The suit used in the demonstration—produced by Fyrepel Products, Inc., Newark, Ohio—has the aluminum coating on a fiber glass material which is backed up with fiber glass quilting.

Other existing garments are produced from 3M's aluminum-coated light asbestos (1.2-pound herringbone, Underwriters' grade) or aluminum-coated cotton duck.

Fabric samples tested the natural way

● HUNDREDS of samples of fabrics are continuously tested in the sun, wind, rain, and other natural weather conditions on the roof of one of the buildings comprising the Graniteville Co., Graniteville, S. C.

The samples are arranged in racks situated on the roof (see accompanying illustration), with ample identification to determine how the fabric withstands elements influencing fade, strength, and other endurance characteristics.

This weathering test goes on throughout the year without intermission, thereby simulating actual service for many of the fabrics. Mill personnel keep an accurate account of each sample so that improvements may be made whenever a change is indicated.

Note sample racks on the roof of this single-story building.

The major item in the total cost of the outdoor testing laboratory was the expenditure for the racks which were fabricated by mill shop personnel. Their cost was negligible, however, when compared with the results achieved.

How to dye nylon taffeta without streaks

The Cheney Process permits level dyeings with acid colors

IT IS COMMON knowledge that when nylon fabrics are dyed with acid colors, a streaky warp condition is produced in the fabric. Acetate (disperse) colors dye nylon more levelly than the acid colors, eliminating or reducing the streaky effect.

However, acetate colors have the disadvantage of poor wet fastness characteristics, and the color and money value of acid dyes is usually (though not always) better than acetates.

Because of the superior wet fastness characteristics of acid colors it would be of definite advantage to develop a method of dyeing nylon with these dyes which would produce levelness equal to or superior to acetate colors.

In view of the advantages to be gained, an intensive investigation was started by Cheney Brothers*, Manchester, Conn., to see what could be done to produce level dyeings with acetate colors.

A process was developed and was used by Cheney Brothers for about two years, with good results in dyeing taffeta fabrics on nylon type 200. The process has now been purchased by the Du Pont Co., and released to the trade.

ONCE IT WAS established that no amount of physical manipulation in cloth manufacture or dyeing will eliminate streakiness in dyeing acid colors on nylon, a search was started to develop a new dyeing method. Research was concentrated on finding a swelling agent to permit penetration of the yarn by the dyestuff, and a buffering agent to produce levelness.

Impetus for the development of the method which finally resulted came from the late Frank D. Cheney, who revived an old silk principle as a solution for the streaky dyeing. This involved dyeing in a solution of silk gum suds (a combination of soap, sericin, and acetic acid used as a leveling agent in dyeing silk).

Although satisfactory dyeings were obtained by dyeing in silk gum suds, supply factors made it impractical to use, so the search for other products continued.

It was finally found that sodium acetate used in a concentration of 2%, with 2% phenol (3% is now used; percentages based on the weight of the solution), and acetic acid to adjust the pH to about 4.2, gave a reduction in warp streakiness equal to that of dyeings in silk gum suds. Neither phenol nor sodium acetate is effective alone; the success of the method depends on a combination of the two.

Typical Dyes Suitable for the Cheney Process

Alizarine Cyanone Green 5G
Alizarine Cyanone Green GNN
Alizarine Irisol RD
Alizarine Light Green GS
Alizarine Sky Blue BS
Alizarine Supra Sky RA
Anthraquinone Green GN
Anthraquinone Milling Blue BL
Calcocid Milling Yellow 5GC
Cloth Fast Blue S5R
Croceine Scarlet MOO
Diamine Fast Orange FA
Direct Fast Orange 3 GN
Dura-Maroon V
Erie Scarlet 3B
Fast Acid Navy 7RLA
Fast Acid Yellow 2RLN
Fast Wool Cyanone R
Irganol Red BLS
Neutral Fast Green G Conc.
Polar Red RS
Polar Yellow R
Pontacyl Fast Blue 5R
Supramine Red 3BA
Supranol Yellow RA
Wool Fast Orange GA

THE METHOD consists essentially in applying slow-exhausting acid dyes at 212 F in a closed, ventilated jig in the presence of a 3% solution of phenol (CP grade), buffered with a 2% solution of sodium acetate, and gradual exhaustion of the dyes with either acetic or formic acid.

There is an increase in dye depth and dye rate, and in some cases there is an improvement in light fastness. Streaks are minimized to an acceptable degree.

The dyeing procedure, as developed by Cheney Brothers and modified slightly by the Du Pont Co., based on a 100-gallon volume and a liquor ratio of approximately 5:1, is as follows:

1. Scour with
   4.0 lb caustic soda
   2.0 lb Duponol RA
   2 ends at 110 F
   1 end at 130 F
   1 end at 150 F
   1 end at 180 F
   4 ends at 205-212 F
2. Rinse
   2 ends at 205-212 F
   2 ends at 140-160 F
3. Prepare a fresh bath at 140 F containing
   27.0 lb phenol (92%)
   16.5 lb sodium acetate (anhydrous) or
   27.5 lb trihydrate
   2 ends
4. Add
   ¼ of total color
   Raise temperature to 160 F
   1 end
5. Add
   ¼ of total color
   2.5 lb acetic acid (80%)
   1 end
6. Add
   ¼ of total color
   2.5 lb acetic acid (80%)
   Raise temperature to 180 F
   1 end

*Now a part of La France Industries.

7. Add
   Remainder of color
   2.5 lb acetic acid (80%)
   1 end
8. Raise temperature to boil
   6 ends
   The pH of the bath should be in the range of 4.0 to 5.0. Color adds may be made if necessary after this cycle.
9. Rinse
   2 ends at 100 F
10. Rinse
    2 ends at 100 F with 4.0 lb denatured alcohol
11. 1 end through cold water
    Extract
    Dry
12. Heat treat at 375 F for 30 seconds to remove phenolic odors.

FABRICS DYED by the Cheney method, when not completely processed, have a phenol odor. It was found that the easiest and cheapest way to remove the phenol odor is to heat treat the fabric on a high temperature tenter, as in Step 12 above.

At first the heat treatment resulted in a slight softening of fabric hand, but it was found that this could be compensated for by increasing the amount of phenol used during dyeing from 2% to 3%, as mentioned previously.

It is important not to use temperatures higher than 375 F in aftertreatment, to avoid softening of the traditionally "swishy" taffeta hand.

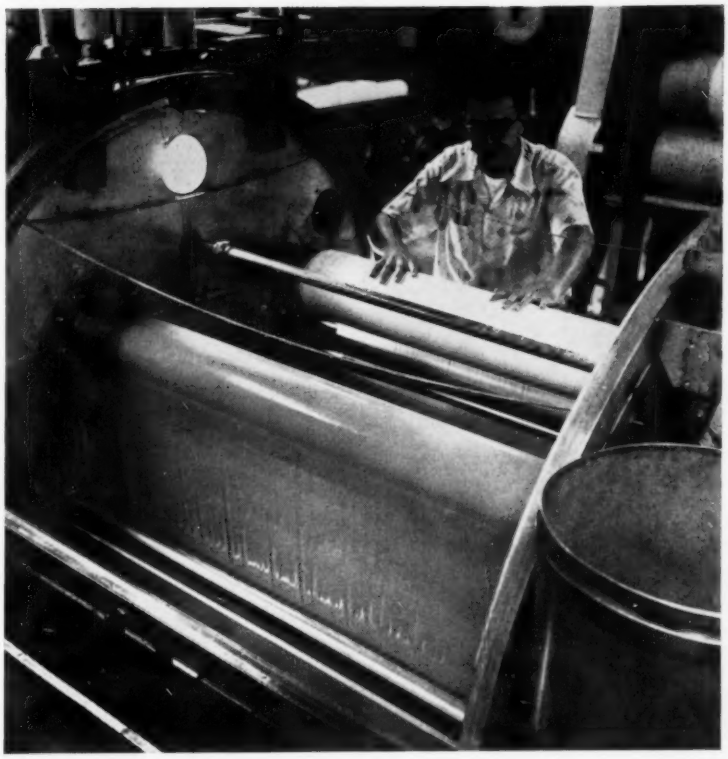
Phenol is a solvent and shrinking agent for nylon, so its use must be accurately controlled or it can weaken the goods. The alcohol wash (Step 10) removes residues which might be harmful to the fabric.

Phenol is a highly toxic material. It is damaging to the skin and eyes, and causes severe burns. Extreme care must be exercised in handling, and the wearing of goggles, rubber gloves, and apron is recommended.

If spilling on the body occurs, immediate washing with warm water and soap is necessary. Washing with alcohol is especially beneficial.

A closed, ventilated jig is essential, since the vapors are toxic.

Disposal problems may be encountered if phenolic liquors are discharged into streams used as sources for domestic drinking water. However, sodium chlorite will react with phenol and convert it to a weak dibasic acid which may be safely discharged into such streams.



Dyeing by the Cheney Process must be done in a covered, ventilated jig (open when photo was made).

Van Vlaanderen Co.

Heat treating at 375 F for 30 seconds on high temperature tenter removes phenolic odors from fabric.

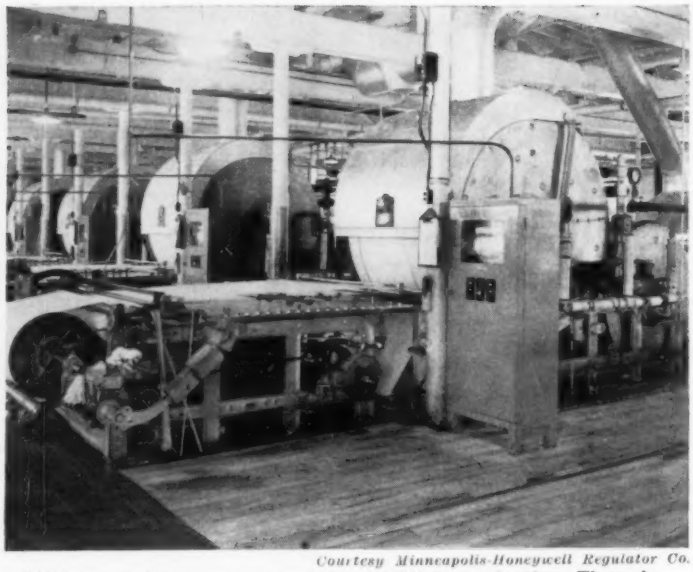
Acknowledgment

The information contained in this article was obtained in interviews with personnel at Cheney Brothers, and from Bulletin N-62 of the Textile Fibers Department, E. I. du Pont de Nemours & Co., Inc.

Warp sizing

*Article 6**

by Paul V. Seydel, D.Sc.
Seydel-Woolley & Co.
Exclusive



Courtesy Minneapolis-Honeywell Regulator Co.

Mildew must have proper growth conditions to develop. These include high moisture content, warmth, lack of ventilation, and proper pH. Note moisture controls installed on these cotton slashers.

Materials for Sizing (continued)

Antiseptics for Mildew. The materials which are included in size mixtures furnish excellent food for the organisms producing mildew. Mildew or mold is the term for a large variety of fungus growths which occur on organic matter, or for the colorations produced by these fungi. These minute plants are known to biologists in several thousand varieties and in all colors of the rainbow. Under the microscope, the growths usually found on cloth look furry, with the hairs growing out from small knobby spores.

Generally, mildew attacks only the size film itself, for pure cotton or rayon does not furnish food except for the most hardy types, and then only under very favorable growth conditions.

Cellulose acetate fibers are practically immune to mold attack, as are the newer synthetics.

As a rule mildew may be identified by its characteristic musty odor. If this odor is noticed soon enough, and the cloth is immediately dried, the growth can be stopped before damage to the goods occurs, and the discolorations can be removed by bleaching.

Mildew must have proper growth conditions to develop. These include high moisture content (more than 10% in cotton cloth; over 15% for viscose), warmth, lack of ventilation, and proper pH. It has been shown that soap may increase tendency of wool to mildew because it produces a favorable pH for mildew growth. These conditions are all that are necessary, for mildew spores are always present in the air.

It has been shown that the moisture in the surrounding air has more effect on mildew growth than that in the cloth. However, under normal storage conditions, with cloth packed in bales or on rolls where no ventilation is obtained in the package, the air between the cloth layers may become quite saturated if the cloth is damp, so that growth may occur, even though the warehouse is fairly dry. Several days to several weeks are required for development of mold growths, depending on conditions.

As far as the protection of the size mix itself is concerned, overnight storage, while not advisable from the standpoint of deterioration of starch viscosity and film-forming properties, will not generally result in mold formation. Mold usually requires several days to get started. And if the size is kept hot as it should be, most mold spores will be killed by temperatures over 165 F.

Mildew-proofing agents are tested in the laboratory by inoculating cloth impregnated with them with cultures of molds. The inoculated cloth is stored for several days to two weeks in the presence of moisture, preferably on an agar plate, and at favorable temperature conditions in the dark. Visual examination, evidence of odor, or decrease in breaking strength may be used to determine effectiveness of the treatment.

Mildew may result where excessive amounts of deliquescent are used, attracting and holding more than the safe content of moisture.

While it is theoretically possible to add enough mildew-proofing agent to the size to prevent mold growth under all storage conditions, it is not economically feasible. The better agents are rather expensive, and since in most cases the size is removed before the cloth is finished, it is advisable to use only enough to take care of the normal variations in storage conditions. Although mildew can grow in cloth with a moisture content of 10% or lower, its growth is very slow under these conditions, and a small percentage of agent will prevent it.

It is not necessary to have enough antiseptic to kill the spores,

*This series of articles, which deals with all phases of the warp sizing operation for cotton yarns and yarns produced from man-made fibers, began in the May, 1956, issue of TEXTILE INDUSTRIES. Reprinting of the entire series in book form is planned.

but only to prevent them from growing.

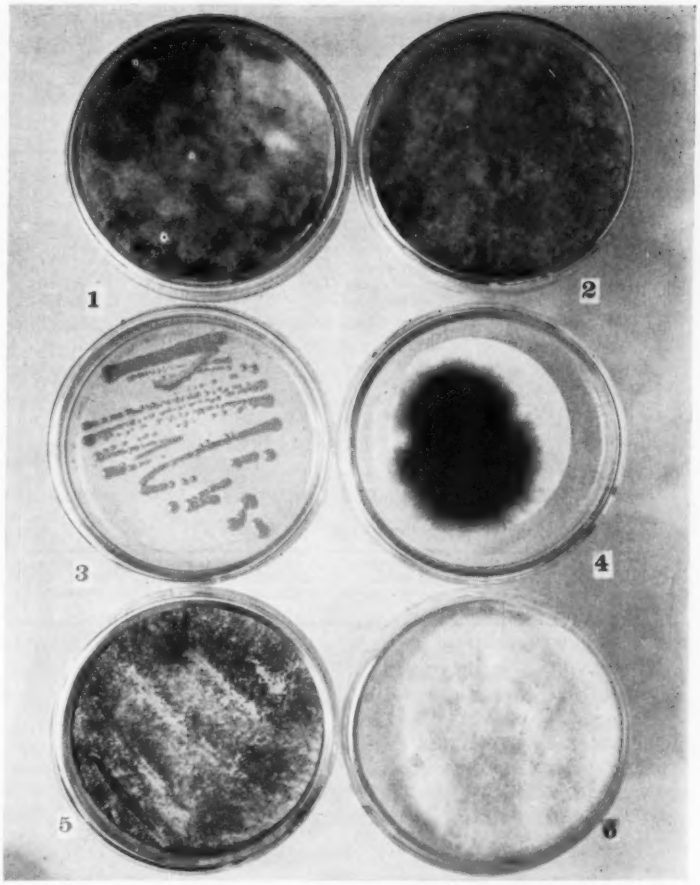
An excellent discussion of mildew-resistant treatments for fabrics, giving tables showing the effectiveness of many agents investigated by the U. S. Bureau of Home Economics, may be found in *Industrial and Engineering Chemistry*, Vol. 33, p. 538 (Mildew-Resistant Treatments on Fabrics, Furry, Robinson, and Humfeld).

The disinfectant, preservative, or antiseptic used must be sufficiently non-volatile so that it will not be carried away by the steam developed in drying. It must be compatible with the size mix and have no effect on dyes or on cotton. It should be odorless, colorless, and stable. It should be non-toxic and non-irritant for those who must handle the goods. Several of the agents found in general use are:

Phenol, Carbolic Acid (C_6H_5OH) White crystals with a melting point of 42 C; powerful, objectionable odor. Phenol boils at 180 C; it is a powerful antiseptic, but is volatile and cannot be considered permanent.

Cresylic Acid ($C_6H_4(CH_3)OH$). A liquid with a strong characteristic odor, being a mixture of meta, ortho, and para-cresol. The boiling point is between 185 and 203 C. This is less soluble in water than carbolic acid, and a more powerful antiseptic. Redeal gives as coefficient 3.7 compared to phenol. Cresylic acid has the same virtues and objections as phenol.

Salicylic Acid ($C_6H_4(OH)COOH$) It occurs in many plants, especially as a methyl ester in the essence of wintergreen, traces of which exist in most wines. It is made on a commercial scale from coal tar intermediates. Formed as slender white crystals, it is used as a preservative and as a basis of azo dyes. The iron salts produce an intense coloration, making it inadvisable to use in white fabrics. Although it has very good preservative qualities, its vapor tension is too considerable to make its use advisable where a permanent antiseptic is desired if the material is exposed

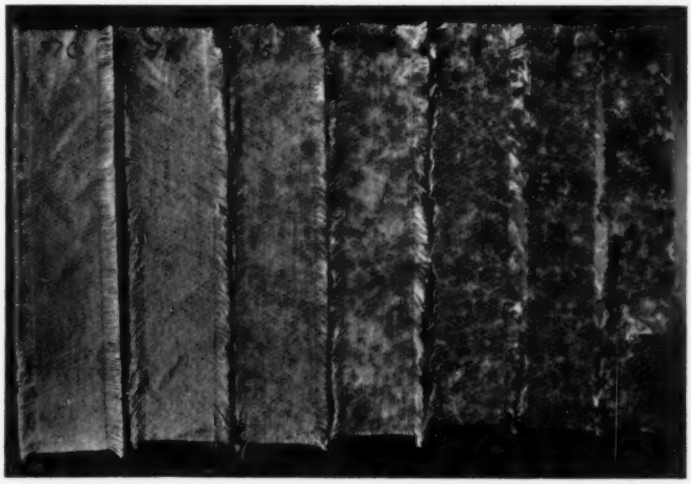


Courtesy Agricultural Research Service, U.S.D.A.

Mildew microorganisms from garden soil: (1) and (2) show the extent and variety of organisms cultured from growth on fabrics inoculated and incubated with garden soil; (3) a species of bacterium forming yellow colonies; (4) alterni sp.; (5) teacolerma sp., (6) mucor sp.

Untreated cotton duck. Strip on left has not been exposed to mildew; the other strips have been inoculated with garden soil and incubated for 2, 5, 7, 9, 12, and 14 days.

Courtesy Agricultural Research Service, U.S.D.A.



PHENOL COEFFICIENTS

Compound	Method	Temperature* °C	Values obtained with following test organisms: Staph. aureus	B. typhosus
CHLORINE GROUP				
Chloramine	Rideal-Walker (1)	37	133	100
PHENOLIC GROUP				
Creolin	Rideal-Walker	37	.....	9-10
Ethyl phenol	Rideal-Walker (4)	25	6.0	7.4
n-Propyl phenol	Rideal-Walker (4)	25	16.5	21.6
n-Butyl phenol	Rideal-Walker (4)	25	50	68
n-Amyl phenol	Rideal-Walker (4)	25	139	197
n-Hexyl phenol	Rideal-Walker (4)	25	375	500
MISCELLANEOUS				
Formalin	Rideal-Walker	37	0.3	0.7
Hydrogen Peroxide	Rideal-Walker	20	.....	0.01
Menthol isomers:				
l-Menthol	Rideal-Walker	12-16	5-8	.....
d-Menthol	Rideal-Walker	12-16	7-12	.....
dl-Menthol (racemic)	Rideal-Walker	12-16	7-12	.....
dl-iso-Menthol	Rideal-Walker	12-16	7-12	.....
Picric acid (2-3% in C_2H_5OH)	Rideal-Walker	37	.....	6.0

*The time of exposure of the organisms to the disinfectants was 7.5 minutes. From Approved Technique of the Rideal-Walker Test. London: H. K. Lewis and Co. (1921). And Schaffer and Tilley, Jour. Bacteriology 14, 259 (1927).

to either heat, moisture, or air.

Salicylanilide ($C_6H_4(OH)CONHC_6H_5$). This product is used quite widely as a textile antiseptic. It is more expensive than salicylic acid, but more effective and less volatile.

Sodium Pentachlorophenate (C_6Cl_5ONa). It is one of the many chlorophenol derivatives that are used for antiseptics and disinfectants. Effective, non-volatile, strong odor. Used in finishing in a two-bath process with lead acetate to produce the insoluble lead salt, which is more resistant to washing than the sodium salt.

Dihydroxyhexachlorodiphenylmethane ($HOC_6HCl_2)_2CH_2$). A powerful antiseptic, usually applied as the sodium salt. Non-volatile, low toxicity, odor not objectionable. Not satisfactory in acid solutions.

Benzoic Acid (C_6H_5COOH) is an organic acid and occurs in gums and fruits. Produced synthetically from toluol, a coal tar derivative, it is volatile even at 100 C, although it boils only at 249 C. It sublimes readily into beautiful lustrous leaflets. It is a powerful antiseptic but shares with many other organic antiseptics a tendency to be too readily carried off by steam for use in sizing.

Formaldehyde (CH_2O) has also been advocated. It is readily decomposed by heat and quite volatile. It is a gas of characteristic odor of which water dissolves up to 52%. Although a powerful antiseptic, it is very objectionable in the slasher room, as it is extremely volatile and its presence disturbs operators. It is of no practical value as a sizing ingredient.

Boric Acid (H_3BO_3). This acid is marketed as white flakes, unctuous to the touch. It is powerful for restraining bacteria, but it must be remembered that 100 gallons of water evaporated as steam can carry 2.8 pounds of boric acid.

Zinc Sulphate ($ZnSO_4$) White crystals; has strong metallic taste; freely soluble in water; it is also antiseptic, but not equal to zinc chloride, and especially lacks the hygroscopic value of the chloride.

Zinc Chloride ($ZnCl_2$). This salt, already mentioned under deliquescents, besides being hygroscopic, is a powerful, useful, and permanent antiseptic, used successfully and extensively in sizing. Percy Bean, the British textile expert, says on page 619 of his book on the "Chemistry and Practice of Sizing": "There is no doubt that the manufacturer is responsible for the matter of liability, when the cloth has mildewed, if it does not contain sufficient zinc chloride."

Zinc Naphthenate. A powerful antiseptic, permanent, but having a disagreeable odor.

Some copper salts, especially copper naphthenate, have very powerful effects as antiseptics against mold. Their color and their catalytic action, however, make them undesirable under most conditions.

Sodium Silicofluoride. This is a powerful, permanent antiseptic, having no color or odor, and chemically comparatively inactive. Its main drawback is its very slight water solubility and difficulty of emulsifying.

Many mercury compounds are available for use, fulfilling most of the requisites of a good antiseptic, except for their very high toxicity. For this latter reason alone, their use is not recommended.

Cadmium soaps have been found to be quite effective in a two-bath finish. They are stable, odorless, and colorless. They would be very difficult to remove on desizing.

There are hundreds of antiseptics available on the market today, but no single one has all the desirable properties of the perfect antiseptic. One must simply consider the conditions under which it is to be used, and select the one best suited to his purpose.

Weighting Materials. Weighting materials will be mentioned only briefly. The practice of weighting warps on the slasher has practically been discontinued in this country and never had the importance that it enjoyed in England and Europe. Extensive weighting of cotton goods is still being carried on in the Indian textile trade.

So-called "heavy" size formulas these days generally mean a maximum of 17% size, whereas the weighting that has been practiced

in England in the past has added from 30 to 200 per cent on the weight of the warp.

This weighting was done principally with the help of such materials as china clay, talcum, or French chalk, barytes or barium sulfate, calcium sulfate, magnesium sulfate, and sodium sulfate. Chloride and apparatine gums made from starches helped to obtain the adhesiveness that was necessary to hold the weighting agent on the yarn. Zinc chloride was a popular ingredient, giving a better starch gum, and acting as well as an antiseptic and a hygroscopic agent, in addition to adding weight itself.

China clay was probably the most widely used weighting agent, due to its ability to mix readily in sizes, to its lack of grit in the better grades, and to the fact that a considerable weight could be put on the cloth without obtaining a harsh feel.

Sugars have also been used to add weight, as well as glucose.

However, the modern formulas that are made up to add weight make use generally of the thin boiling starches and of dextrine gums, which can be made up in sufficient concentration to obtain the desired weight, and at the same time do not have the tendency to shed that the inert weighting materials give to a size mix.

Dextrines have good penetrating and adhesive properties. They must be used in conjunction with plenty of softener and deliquescent to overcome the stiff and sticky feel they would otherwise impart to the fabric. Good penetration is desired to obtain much added weight without shedding, but too much penetration will give a stiff yarn, lacking in the necessary pliability for good weaving.

Water. A good water supply is of prime importance in manufacturing of almost any kind, but it is essential in sizing and finishing It should be as nearly free as possible from organic matter and iron, and should not contain large quantities of the salts of calcium and magnesium, the elements which make the water "hard."

Any considerable amount of iron will cause a discoloration of the warp. A water containing a considerable amount of iron will show a reddish precipitate on exposure to the air.

Practically all natural water—that is, water from springs, rivers, lakes, etc., as opposed to distilled water, or boiler condensate—contains some calcium, usually in the form of carbonate or bicarbonate. A small amount of this is not harmful. Actually, we often find that highly pure waters under some mill conditions have strong foaming tendencies, while a small amount of hardness in the water due to the calcium salts will cut the foam. The quantity necessary for this is much less than the amounts which might cause difficulties. The same is true of magnesium salts, which are also quite common, but to a lesser extent than calcium salts.

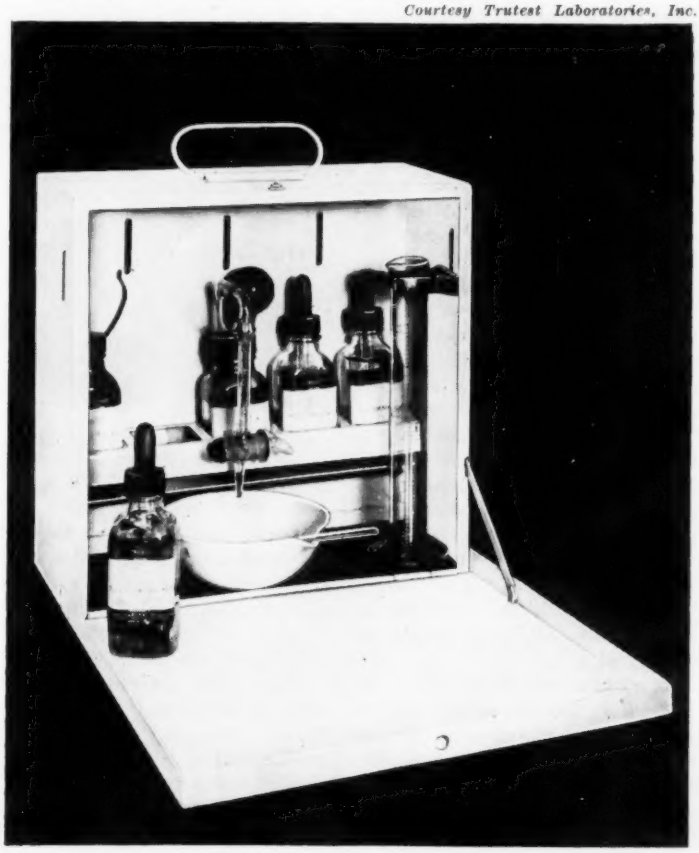
The presence of calcium is confirmed by testing with ammonium oxalate, which gives a white precipitate of calcium oxalate. Magnesium salts are disclosed with a solution of sodium ammonium phosphate, after testing for calcium. The sensitivity of these tests may be increased by concentrating the water by evaporation, or boiling.

Water Analysis Free. In most states where textiles are manufactured, the state geologist or the state chemist is prepared to analyze the water supply of the taxpayer free of charge. He will comment on its fitness for beverage and manufacturing purposes and will advise concerning the elimination of the most objectionable ingredients.

Iron and the bicarbonates of calcium and magnesium may be eliminated with lime. Excessive amounts of sulfates, chlorides of calcium, and magnesium can be reduced by the use of sodium car-

Portable water testing unit, handy for running quick tests on water that may have changed due to temporary condition.

Courtesy Trutest Laboratories, Inc.



bonate, commonly called soda ash.

Methods of Treating Water. Each condition requires special treatment; therefore, if the water supply is unsatisfactory, expert advice is required for its correction, because the use of an agent suitable to correct one water supply may make another one worse than it was originally.

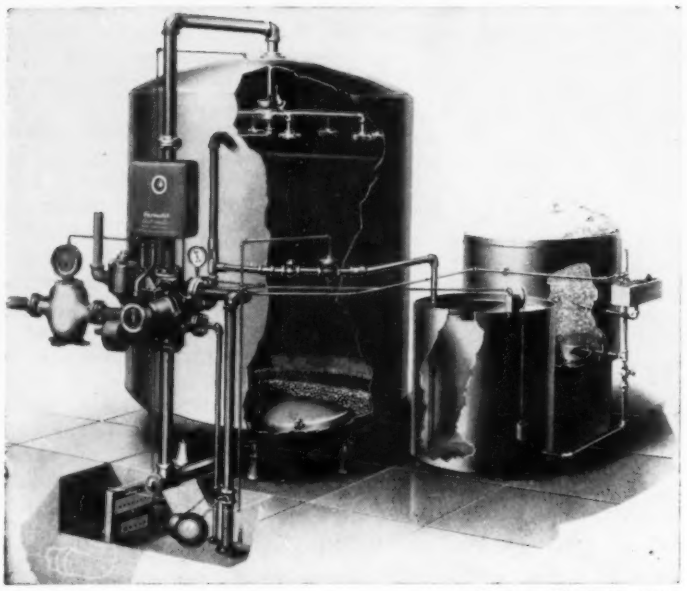
Water-treatment methods should be installed by specialists in this field, where analysis or mill troubles indicate that this is desirable. These men will check on previous analyses, study the source for probable variations, and base their recommendations on their findings.

Moderately hard waters may be readily treated by ion exchange, using zeolite-type softeners. These take up the calcium and magnesium ions from the water, and when saturated, may be regenerated by passage of brine solutions, which in turn displace the calcium and magnesium with sodium ions, leaving the softener ready for further operation. The original zeolites were natural minerals, but at present a number of very efficient synthetic materials are available.

Very hard waters are generally treated by the lime-soda ash method, which precipitates most of the hardness by formation of the insoluble carbonates. This method may also be used in combination with other methods.

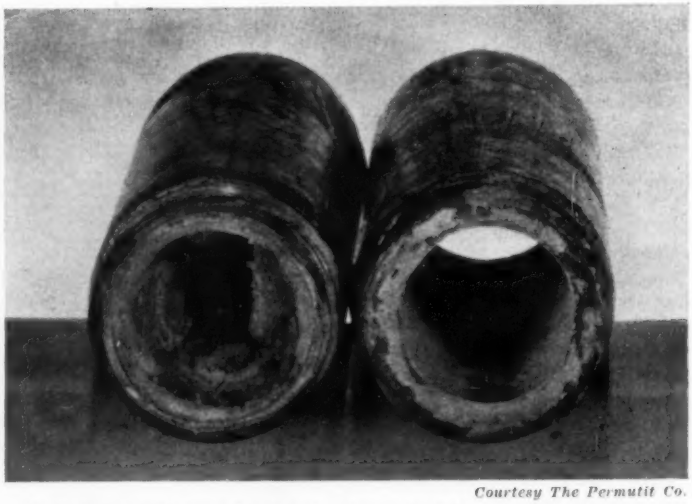
A comparatively recent innovation in water treatment is the electrolytic water softener, which makes use of metal electrodes which remove hardness by electrolytic methods. The method is said to be able to remove reasonable amounts of boiler scale that have already formed. It seems particularly advantageous for convenient handling of comparatively small amounts of water.

For those mills not desiring to install water softening systems or apparatus, it is best to use the pure water from condensed steam for making up size mixes. An installation for this purpose is very simple to rig up and is inexpensive.



Courtesy, The Permutit Co.

Cutaway view of zeolite softener.



Courtesy The Permutit Co.

Left, how scale from hard water forms in the pipe. Right, adequate water treatment can protect the pipes.

Soft and Hard Water. The amounts of solids found in water may vary from a negligible quantity, such as two or three parts per million in unusually pure waters, to 230,000 parts per million, or 23%, as it is in the Dead Sea.

Pure water mixed with soap forms a lather and is termed soft. Waters containing considerable amounts of salts or bases as lime and magnesium will not readily form a lather and are called hard. The hardness of a water and its total solids are very important factors. A water is considered soft if it shows less than fifty parts of salts per million. Above 150 parts per million, it is called hard. Between these two figures it is called moderately hard.

Pure Water. Pure water can be obtained by distillation. It is tasteless, colorless, odorless, completely volatile, and neutral to litmus. It will produce a lather when 50 parts

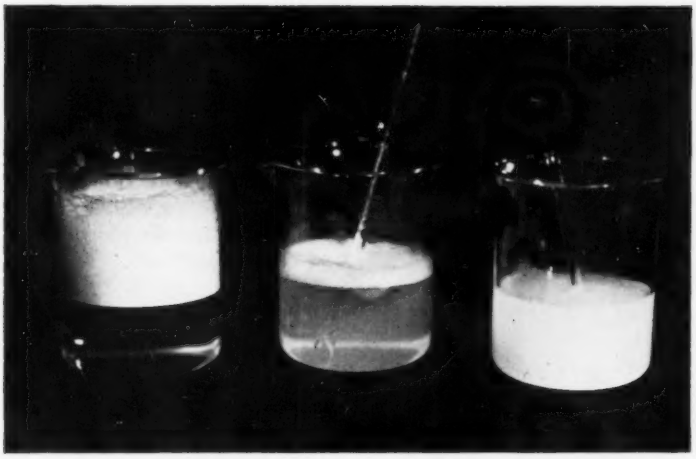


Illustration of the effect of hard water on soap. Beakers from left to right contain soap in soft, hard, and very hard water. Note precipitated lime soaps.

are shaken with one part of standard soap solution. It boils at 212 F at sea level normal pressure. Its boiling point goes down as the altitude goes up and, consequently, the air pressure goes down.

River Water Usually Soft. River water as a rule is much softer than spring or well water even though it may contain a greater percentage of suspended solids. This is due to the fact that river water is largely rain water, draining from the surface of the earth and the suspended solids (mostly mud), being insoluble, do not affect the hardness. These suspended solids can be eliminated in settling basins or by filtering.

Rain water, being condensed vapor, carries very little solid, hardly two or three parts per million, which is dust washed from the atmosphere during the rain. Well and spring waters, having percolated through the ground, have generally dissolved a considerable amount of mineral matter from the soil. The waters of springs and streams eventually reach the sea where the salt accumulates.

In sea water, evaporation has brought the salt concentration to a high percentage, especially in such seas as the Dead Sea and other salt lakes where volatilization takes place at a considerable rate in a comparatively small area, so that the lakes have finally accumulated more salt than their waters will hold. Salt crystals then begin to deposit in the lake and around the shore area, as at the Great Salt Lake. It is this high concentration of salt that makes it impossible for fish to live in the Dead Sea, or Great Salt Lake.

One part of standard soap solution will produce a lather when shaken with fifty parts of pure water. A soft water will require little more soap to produce a lather, whereas even a moderately hard water will be quite expensive in soap and a very hard water will be out of the question in any process of soap scouring. The cost of soap, not to mention other disadvantages, would be prohibitive.

The pH of Water. The pH of the water is an important factor. The pH of pure water is 7.0. If above this figure the reaction is alkaline; if below, it is acid. Water should not be acid; therefore, the pH should be above 7.0. However, it should not be much above 7.0, because a strongly alkaline water has the tendency to make the starch paste mixture, used for sizing, foam, and this foaming is often difficult to eliminate without affecting adversely the quality of the size.

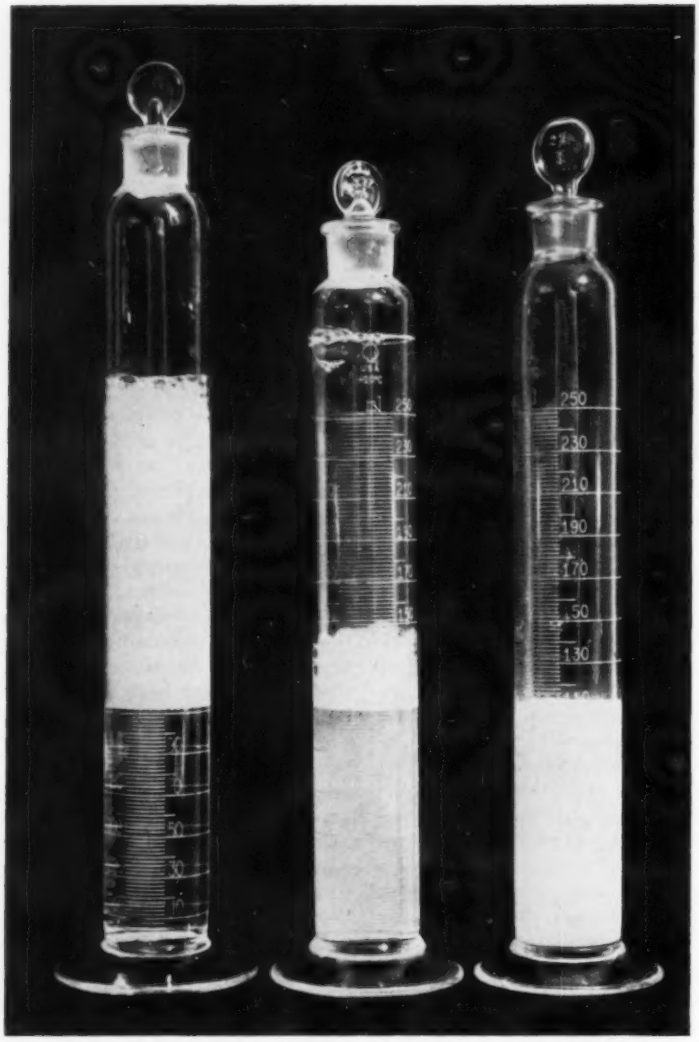
Trouble in Sizing Caused by Water. When applying a remedy, a doctor must be careful not to kill the patient. Many of the remedies used for stopping foam in the size kettle and the size trough have a tendency to kill the value of the size. Vinegar and other acids have been used with more or less success, but the danger, not only of destroying the sizing value of the starch or gelatin but also of attacking the copper of the equipment, is serious. They will not affect stainless steel.

A small amount of foam is not objectionable; in fact, it is a sign that the size has good colloidal qualities and therefore will have a tendency to produce a good, elastic, continuous, protecting film on the warp. Of course, if the foaming is excessive, it becomes troublesome and may even prevent uniformity of results, in which case a reliable warp sizing specialist should be consulted to prescribe the correct size to overcome the undesirable qualities of the water supply, trace the cause of the foaming, and apply the proper remedy.

A size formula that works perfectly in one mill may be a total failure in another. Water is not always the cause of this, but it is in many cases. The pH of the water, its chemical composition, its solid content, all have a great bearing on the success of slashing.

Troubles due to use of impure water in sizing show up sometimes only in the desizing stage. In one case a finishing plant was having trouble desizing cloth from one mill and no trouble was experienced with the same construction from another mill. The first mill was changed to exactly the same size compound and starch as the second, and the trouble persisted. It was finally traced to a too-alkaline water, the residue of which affected the pH of the enzyme bath, decreasing its efficiency.

Good Water Supply Essential. The use of a good water supply is as essential in the size kettle as it is in the boiler, where incrustation of the pipes will in mild cases be expensive in loss of Btu and in extreme cases cause explosions An acid condition of the water will cause metals to corrode. It is therefore a wise practice to check care-



In this photo, a comparison is made between the foams obtainable with soap in (from left to right) distilled, soft, and hard water.

fully the mill's water supply.

Branch water, fed by springs, often changes considerably in composition after rains, varying portions of the supply having percolated through the earth and having absorbed different amounts of salts and minerals. In tracing trouble from water, we have found that mills using branch water as their source of supply may have sudden spells of bad sizing or foaming. Many occurrences of trouble are due to unevenness in water composition.

Sizing Problems. Also, there may be danger in using branch water without testing it thoroughly. It may be polluted by other industries located above the mill on the same branch. In one particular instance, a mill was experiencing discoloration in the form of black spots, which they thought for a long while were bearing-oil spots. We found after investigation, by filtering the water through a piece of fine cloth, that these spots were coming both through the water system and through the steam. Upon further tracing, we discovered that four miles up the branch a machine shop was dumping oily refuse in the branch.

In another case, trouble was traced to a tannery located some three miles away on the same stream as the cotton mill. They did not actually dump their waste liquids into the stream, but on rainy days their sewers would become flooded and the overflow contaminated the branch.

In still another case, by covering with a piece of cloth the end of the pipe feeding the size kettle, it was found that considerable rust was being caught. By eliminating some of the old piping, the trouble was remedied.

A water that is contaminated or a water that contains too much lime, while a menace to most sizing, will sometimes prove absolutely ruinous to compounds of certain natures, particularly in the case of compounds that contain a soap product, such as tallow made soluble by the addition of a small percentage of alkali, because if the water is extremely hard, a good portion of the softener may be thrown out as insoluble calcium soaps, which can cause trouble as sticky yellow spots on the yarn.

It is, therefore, important that the manufacturer of sizing compounds have the proper technical and mechanical training to devise a product which will work with as many different classes of water as possible.

In cases of unsuitable water either he must remedy the trouble by treating the water supply, or, if this is impractical, change the formula of the compound so as to give satisfactory results.

These are just a few of the many chemical problems that the sizing chemist continually has to solve.

Materials to Improve Size. The materials discussed so far for use in sizes are those that may be considered essential for sizing mixes We will now consider the various types that, while not actually essential, may be used to improve the size or to produce certain desired results.

Among these are penetrants, anti-foaming agents, tints and dyes, chemicals for thinning starch pastes, and chemicals for improving the properties of the starch film formed.

Quite often the materials used in other classifications also contribute to these effects, making themselves doubly useful. Such items

should be particularly considered in devising a well-balanced size.

Penetrants. A great deal has been written about penetrants in general in the past decades, and it is not within the scope of this work to go into the individual compounds. Penetrants have several uses in a sizing mixture, the least of which is to cause penetration of the size mix itself into the yarns.

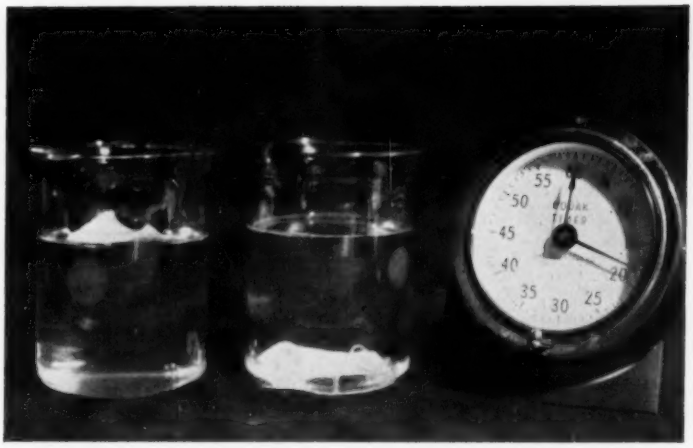
There are two reasons for this. First, it has been shown many times that the wetting of raw cotton at the temperatures normally used for slashing is so rapid that the slight additional effect given by a penetrant would be negligible. This may be easily shown by dropping a small hank of raw yarn onto the surface of boiling water. It will wet out in a few seconds, while at room temperature the yarn will float on top for days.

Rayon, which is not waterproofed as is cotton by a natural protective film of waxes, is rapidly wetted even at room temperature, and at the slashing temperatures, absorbency is still more rapid.

Factors Governing Penetration. The actual amount of penetration of the yarn by size mixes can be increased to a much greater extent by cutting down on the viscosity of the mix, using thin-boiling starches, than it can by adding a penetrant. It is the viscosity of the size mix and the weight of the squeeze rolls that have the greatest effect on penetration of size into the yarn.

The temperature of the size mix also has a very great effect on wetting of raw cotton. A temperature drop from 208 F to 190 F will give a very large difference in wetting time (see Farrow and Neale, *Jour. Textile Inst.*, Vol. 16, p. T209). For this reason, the temperature in the size box must be kept as constant as possible to give uniform sizing. (In addition to the wetting effect, the temperature influences the viscosity, which also affects the penetration—just one more reason to keep a careful check on the temperatures.)

Penetration Can Be Undesirable. The second reason is that, even if it did improve the penetration, in ninety-nine cases out of a hundred this would be undesirable The only good reason for penetration of the size is to anchor it well to the yarn, so that it will not shed in the weave room. For this, very little penetration is required.



A method frequently used to test penetrants is the measurement of the sinking time of a patch of cloth. Shown here are two beakers, one containing plain water (left) and the other with "wet" water or water with a penetrant added. Note that the patch of cloth in the beaker containing the wet water has already sunk while the one on the plain water is still floating.

The size film should form a flexible tube around the yarn, very much like the pneumatic tire of an automobile. In this way the film, like the tire, is more pliable and will withstand the strains and shocks much better than a solidly sized yarn would. A solidly sized yarn would be much too stiff, and too brittle as well.

Penetrants are useful to a certain extent to increase the ability of the size film to take up moisture when it is exposed to higher humidities, so that in the weave room it can assume standard conditions more rapidly. Much must not be expected from this, however, as the effect is not very great. It is much more essential to be certain that the yarn is not dried too much.

More valuable is the effect of penetrants as rewetting agents for cloth that is to undergo compressive-shrinkage. The penetrant used should be effective in less than one-half of one per cent of the size mix. An excessive amount of penetrant may cause shedding and may also emulsify the lubricants in the size to the point of decreasing their lubricating efficiency. These are two dangers in the use of penetrants that should be particularly looked out for.

Penetrants or wetting agents in use are principally sulfonic acids or their salts. The molecule is so constructed that one end (the hydrophilic end) is strongly attracted to water, and the other (the hydrophobic end) is repelled by water or attracted by fats. Thus they draw the water and the fats on the cotton together, wetting the cotton.

Soaps are also p e n e t r a n t s, though not as powerful as the synthetic penetrants. Literally hundreds of compounds have been patented for use as wetting agents, mostly in the class known as anion-active agents. Theoretically cation-active agents could be used for penetrants, but as yet most that have been developed, while effective softeners and dispersants, are not as good as the sulfonic acid family for wetting. Furthermore, many of this class of compounds, once dried on the yarns, have water-resistant properties, and would make desizing difficult. The substantive cationics themselves would be almost impossible to remove in ordinary desizing operations.

Some non-ionic wetting agents have also been put on the market. They have the advantage of being compatible with many more ma-

terials than are the ionic types. Some anion-active agents, particularly the soaps, are precipitated by hard water or salts.

Anti-Foaming Agents are of many types, dependent on the source of the foam. Foam is generally due to the type of water used, as the majority of mills do not have bad foaming conditions in the size box. A certain amount of foam is a good sign, indicating that the size has good colloidal properties, and will probably form a good flexible film.

Excess of emulsifying agents, penetrants and sulfonated softeners will generally contribute to foaming. Soap is a particularly bad actor. If the foam is due to presence of improper size materials, it is detrimental. It may be an indication that there is too much softener for an elastic film. This is, however, rather rare.

Foaming is generally a chronic condition of a mill. Where the water supply is from a small branch, or any other variable source, the foaming condition may appear and disappear from time to time, as the water varies.

Very pure water has a stronger tendency to foam than hard water. Where this is the source of the trouble, addition of minute amounts of calcium soaps to the size will remedy the condition. This is a very touchy operation, however, and the soaps must be thoroughly dispersed in the size or two things will happen: first, the foam will not be affected; and second, the lime soap will deposit on the yarns and be very difficult to remove.

Draves' method for testing penetrants. It measures the time required for a standard skein to sink in a solution of wetting agent when the skein carrying a standard weight is held below the surface of the wetting solution by an anchor. Note that skein in cylinder at right has started to sink.

Salts, such as the chlorides, the fluorides, and sodium sulfate, will quite often be effective where very pure water is the cause of the foam. Care must be exercised here that the salt used is compatible with the size mix and that sufficient quantities are not used to affect the starch film adversely.

Avoid Excessive Use of Acids. Often the cause of foam is a high pH of the water. Decreasing this alkalinity by addition of acids, such as acetic acid (vinegar) will stop this type of foam. Excess of acids is definitely to be avoided, as they can cause rapid deterioration of the slasher cloth, rapid wear of copper equipment, and rusting of loom parts, particularly the heddles and reed.

Where this method for decreasing foam is used, one may watch for excess of acid by noting increased shininess of copper drying cylinders. (This is only an indication, and should not be completely relied on, as other causes may contribute to dull or shine the cylinders.)

In the foregoing cases, and in other cases where the source of the trouble cannot be determined, foaming may often be stopped by use of oils, such as kerosene. In reasonable amounts, these oils are safe to use as long as the size mix is heavy enough to emulsify them. They should be definitely avoided in light mixes, as they may not be emulsified sufficiently to prevent their floating on top, causing spots on the warp.

A large number of the commercial anti-foaming agents are either hydrocarbon oils or higher alcohols, such as octyl alcohol, which are intended to float on top of solutions and thus break up the foam. For this reason, most of

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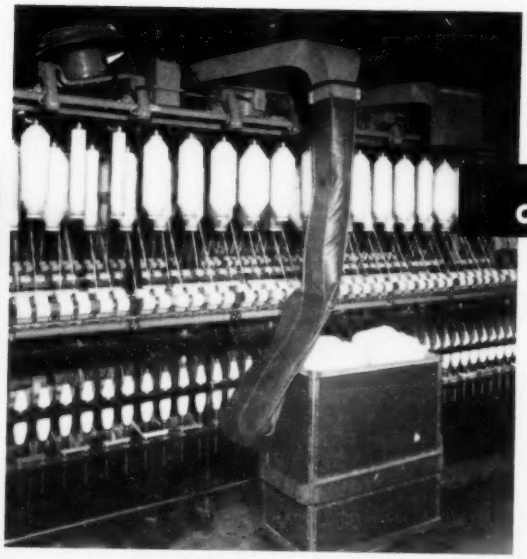
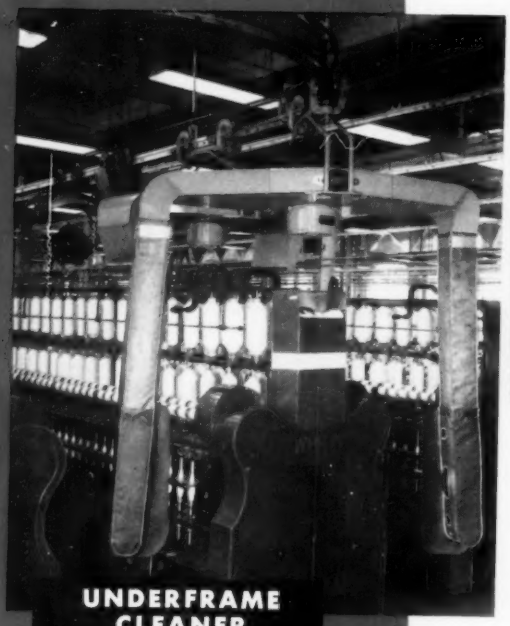
AUTOMATIC CLEANING AND OVERHEAD HANDLING EQUIPMENT

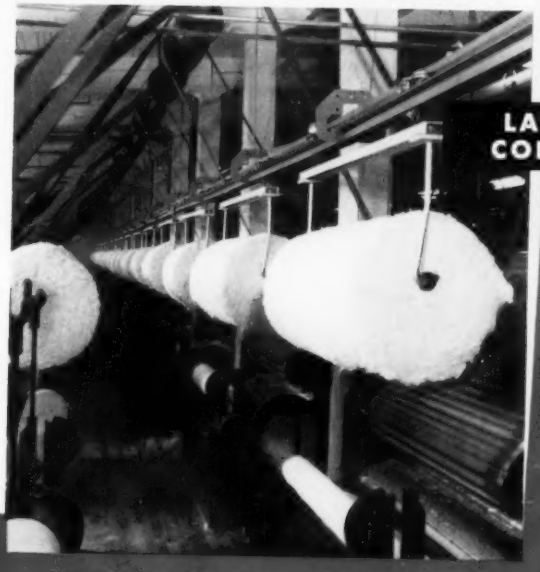
LOOM CLEANER



FRAME CLEANER



UNDERFRAME CLEANER



LANDAHL CONVEYOR

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AT THE

SOUTHERN TEXTILE EXPOSITION

GREENVILLE, S. C.

OCTOBER 1-5, 1956

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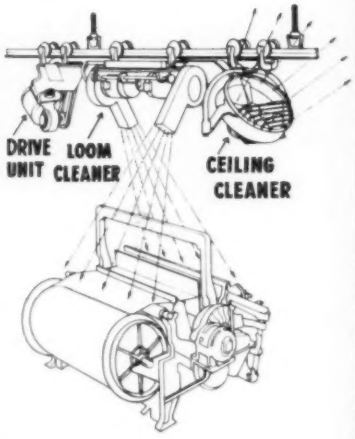
American Monorail

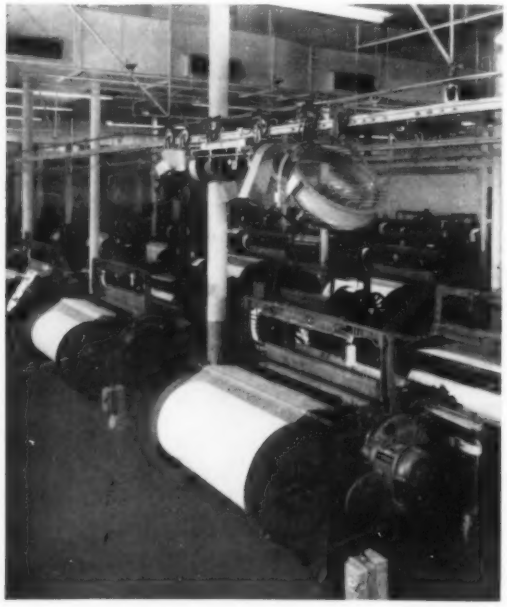
LOOM CLEANER

clean looms weave clean cloth!



Two sweeping and traveling air streams clean all working parts of the loom. This system cleans single or multiple rows of looms within a bay. The crane-type cleaner automatically changes from one row of looms to another within the bay. Speed, direction and velocity are easily controlled. Separate high velocity fans clean the ceiling. Mechanical features require minimum maintenance.

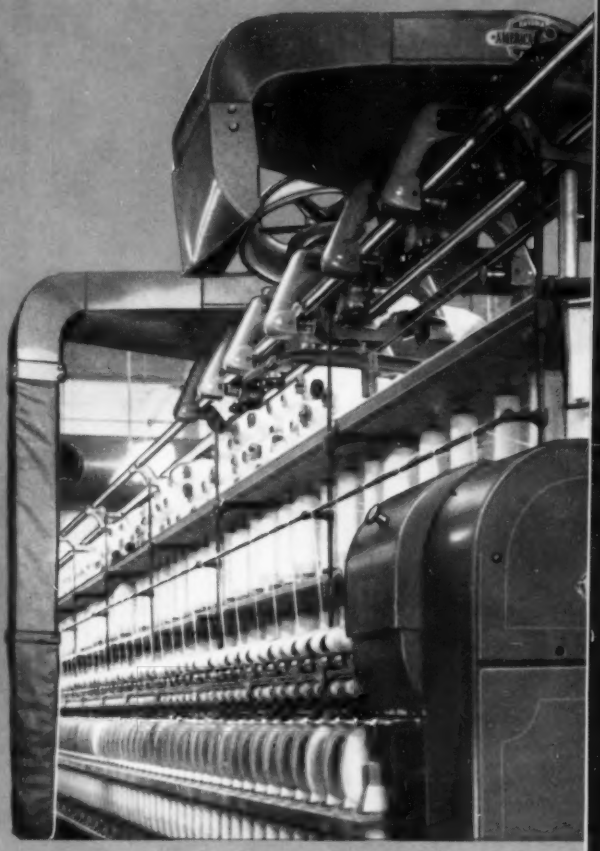
Where loom cleaning costs are high, or for improved production of fine cloth, it will pay to investigate proven advantages of the American MonoRail Loom Cleaner.



With automatic loom and ceiling cleaning, 57% of mechanical cleaning is eliminated.

FRAME CLEANER

solves an entire cleaning problem



This American MonoRail cleaner travels automatically and sends controlled air currents across three separate areas: (3) a high velocity air foil type fan cleans all ceiling areas; (1) a turbo-type fan directs swirling columns of air across roving and creel; (2) another separate turbo fan directs high velocity currents through the snouts to clean under the frame.

Depending upon mill conditions, this new MonoRail cleaner automatically covers up to twelve frames.

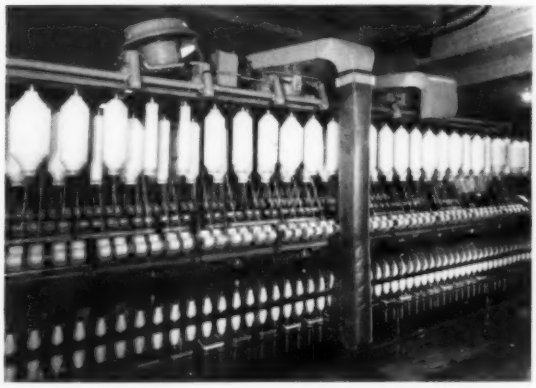
AMERICAN

Cleaning Equipment

UNDERFRAME CLEANER

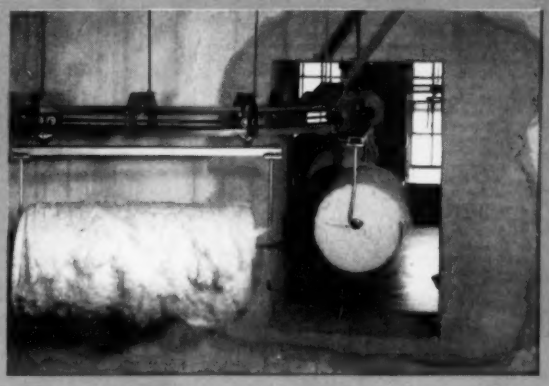
clean frames spin clean yarn!

Creel mounted units clean ceiling, frame and underframe.

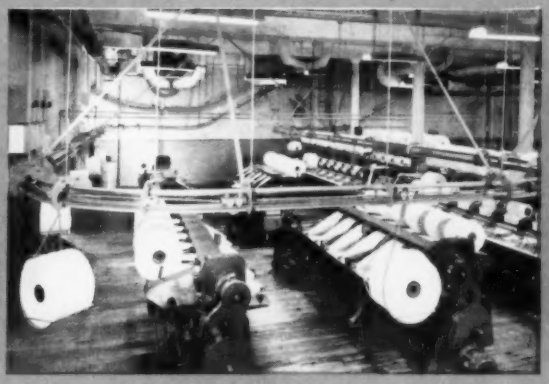


New type underframe cleaner applied to existing cleaner units traveling on MonoRail track.

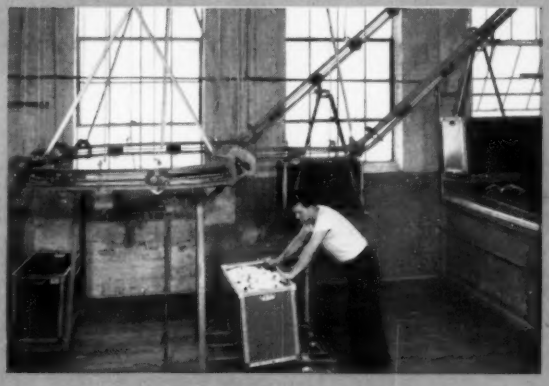
LANDAHL CONVEYORS



Landahl Chainless Conveyors are out-of-the-way and move laps continuously through the wall from pickers to cards.



Landahl trolleys with eight ball-bearing wheels overcome thrust loading from any direction. Any type carrier can be applied. Open track is easily cleaned under high lint conditions.



Bobbin boxes move on Landahl Chainless Conveyor from spinning room to weave shed.

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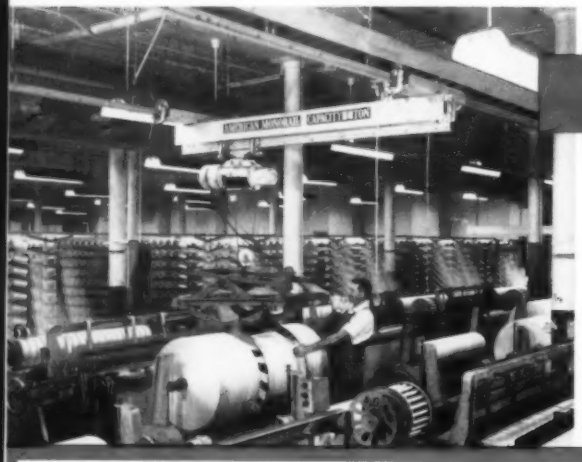
AMERICAN MONORAIL HANDLING SYSTEMS

AUTOMATIC DISPATCH

From room to room, floor to floor, building to building, various materials move automatically on overhead MonoRail systems. Complete elimination of handling labor, including loading and unloading of carriers, is possible. A wide variety of applications operate successfully for years. Handling costs and damage to materials, floors and machines are greatly reduced.

LAP HANDLING

Distribution of laps from pickers to cards can now be maintained on a completely automatic system. This includes lifting the lap from the picker to overhead MonoRail Carriers, weighing within close tolerance, signalling the picker tender for adjustment of his machines, and delivery of laps to the cards with selective deposit at each machine. Many variations to meet special conditions are available.



BEAM HANDLING

Throughout the mill, heavy beams of all types are more economically handled on MonoRail than by any other means. Overhead Systems, whether completely automatic or simply hand pushed, reduce handling labor and eliminate damage to yarn or cloth. MonoRail systems are easily installed to release valuable floor area for production machines.

Write for bulletins covering above subjects or for free consultation with experienced engineers.

Member of Materials Handling Institute - MonoRail Association

AMERICAN MONORAIL COMPANY

OVERHEAD HANDLING EQUIPMENT

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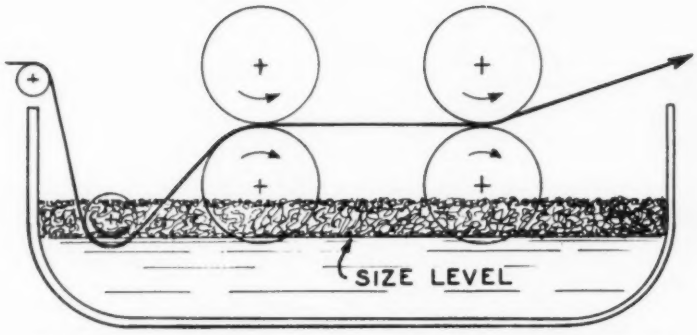
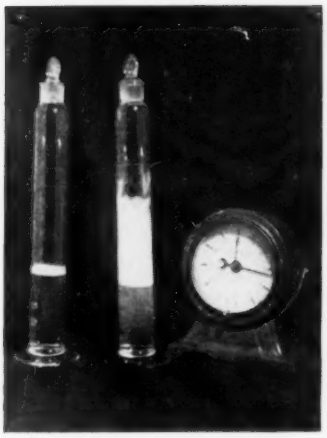


Too much foam in the size box can mislead the operator because it does not disclose the true level of the size. A warp sheet passing through foam cannot pick up the correct amount of mix. Soft warps in the weave shed often result from a foaming size box.



Showing testing of penetrants for persistence of foam.

them are ineffective in size mixes, since the heavy starch pastes will emulsify the oils. The same is true of the silicone defoamers.

In any event, something should be done about bad foaming conditions. Not only is size lost by foaming over on the floor and messing up the room, but it is difficult to determine and keep the proper level in the size box. It is obvious that if the yarn simply runs through the foam, sufficient size will not be applied.

The experience and theoretical knowledge of a size specialist should be relied on to correct foaming troubles. Not only have they seen such conditions in many mills, but they also know how to correct the condition without going so far as to cause other difficulties.

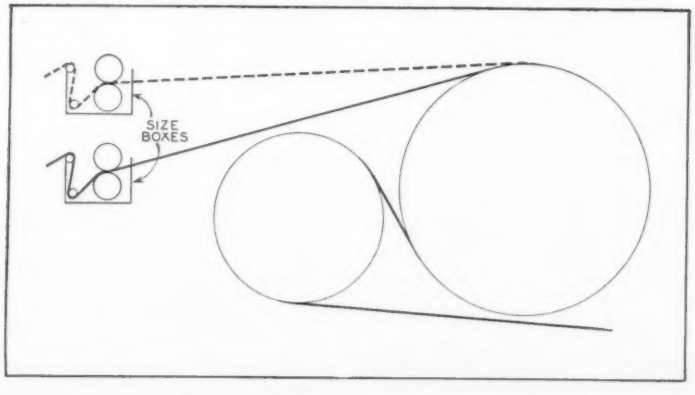
Tints and Dyes. Colors may be added to the size bath for the purpose of identifying certain yarns intended for certain constructions. Dyes should not be used ordinarily, as the penetration and time of treatment in sizing is not sufficiently long to give uniform results for permanent effects. The colors should be water-soluble tints that will be removed with the size during the finishing processes.

Where beams of similar but different yarns are slashed together, two size boxes may be used in tandem, with one set of beams going through a normal size mix and the other through a tinted mix. They are brought together over the drying cylinders and are leased and beamed normally. The tinted yarn should strike the cylinder a few feet before the untinted so that it will partially dry before contact is established, thus preventing bleeding. An extra pair of guide rolls, or contact rolls, may be required for this.

This is often done for constructions mixing cotton and spun rayon, or regular and reverse twists. Only a slight tint is necessary to enable the drawing-in operators and the weavers to differentiate between the two yarns.

Blue tints may be added to whiten yarns which are not intended for later bleaching or dyeing.

"Where beams of similar but different yarns are slashed together, two size boxes may be used in tandem, with one set of beams going through a normal size mix and the other through a tinted mix."



Starch - Thinning Chemicals. These chemicals fall principally into three classes: acids, enzymes, and oxidizing agents.

Although thin-boiling starch is available from all the large starch manufacturers, some mills prefer to thin their own starches. The principal advantage of thin-boiling starch, as pointed out in the section on starches, is to enable the sizer to add more size to the yarn. This does not always result in a better weaving yarn, as some modified starches give weaker films than normal starches. The extra amount of size nullifies this effect to a certain extent.

Theoretically, there should be no reason why the mill cannot produce as good a thin-boiling starch as the manufacturer. But practically, there is a very good reason: lack of uniformity. The starch manufacturers not only have specialized apparatus, but they have experienced scientists and technicians to control the process. And further, they have all the neces-

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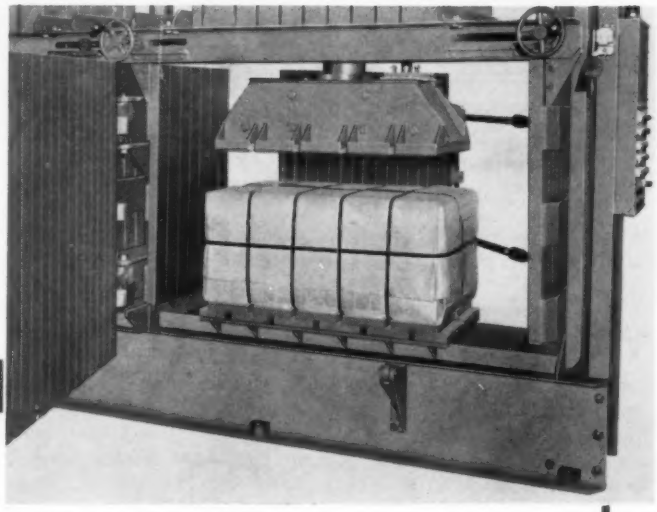

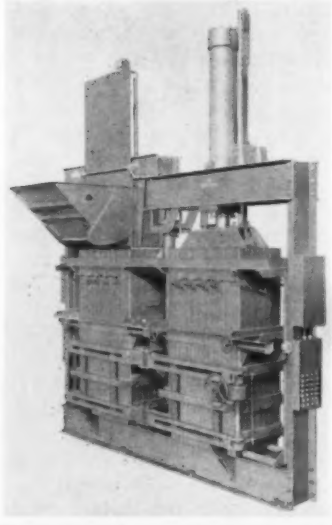

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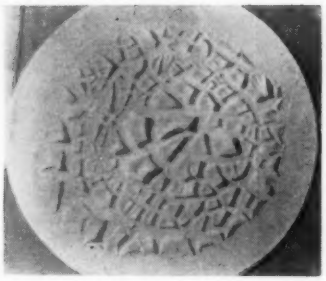
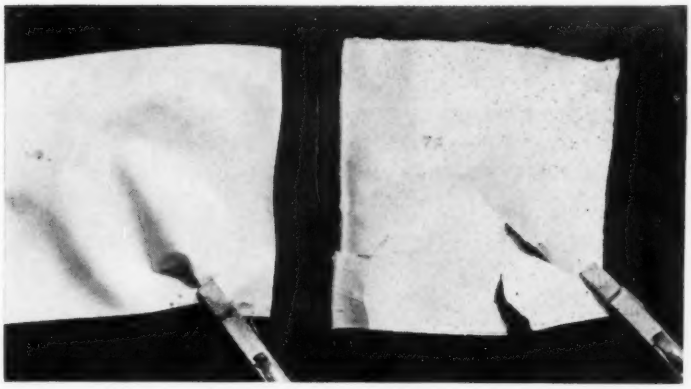
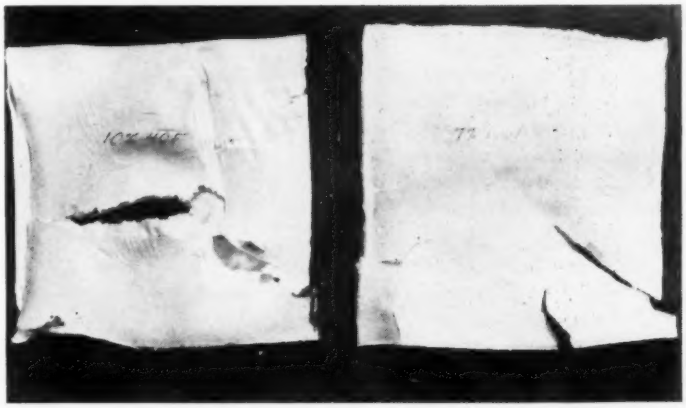


Test film of boiled corn starch paste poured on filter paper. Note lack of continuity which is the result of adding too much tallow to corn starch paste.



Left, test film of corn starch cooked with calcium chloride; it is continuous and highly flexible. Right, a test film of corn starch with no additive; it is also continuous but brittle.



The specimen at the right is the same as that pictured above on the right. On the left is a film formed from a paste of thin-boiling corn starch; it shows greater tendencies toward brittleness and is not as continuous as normal pearl starch.

sary blending equipment and testing facilities to assure a uniform product.

The use of acid thinners, in my opinion, should be definitely avoided in the mill. This method requires very careful time and temperature controls, and the action must be stopped just at the right point by neutralization. And neutralization must be exact, for an excess of alkali will have a definite effect on the properties of the starch paste and film.

Enzymes will produce more readily controllable viscosities However, the action of enzymes is also very closely dependent on the temperature. Very little action is obtained in cold solutions, and if the solution is heated too much, the enzyme is destroyed (this is the method for stopping the action of the enzyme after the desired result is obtained).

The storage stability of many enzymes is not too good. This is one reason for the variation in effect that is often noted in using enzymes. In addition, many of the ingredients used in sizes are not compatible with the enzymes, and some of the very best sizing ingredients may completely destroy the effect of the enzymes. For this reason, whenever enzyme thinners are used, the size ingredients should be added to the starch after bringing to a boil, that is, after the work of the enzyme is finished.

The chloramines are more nearly uniform in their effect. They depend on an oxidizing action of labile chlorine released from the molecule by moisture and heat. Only a certain amount of chlorine is present, and after this has done its work, the action ceases. The chloramines are more compatible with the usual size ingredients, and ordinarily it does not make any difference whether the size is added before or after cooking. The chloramines are still dependent to a certain extent on temperature control and rate of heating, as well as time of cooking. And to produce uniform results, they must be accurately weighed. They should be stored away from moisture and heat, as their storage stability is not too good. The most common is the well-known Chloramine T, the sodium salt of paratoluenesulfonchloramide.

Other oxidizing agents, such as sodium and calcium hypochlorite, perborates, percarbonates, peroxides, persulfates, and perphosphates may also be used but are more difficult to control in general. The hypochlorites, particularly, should be avoided if uniform results are desired. Sodium perborate is the most common and the most reliable of this list.

It should be noted that the effect of these oxidizing agents varies with the type of starch. A change from potato to corn starch will require a change in the proportion of agent, and the exact amount required can be determined usually only through experimentation.

Starch Film Modifiers. Acids, alkalies, and a number of salts have the ability to modify the properties of starch pastes and films. By means of these, starch pastes may

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be made more or less adhesive, the clarity of such pastes as corn starch may be improved to imitate that of potato, and a stronger, more flexible and elastic film may be produced. (There are certain materials which have detrimental effects, weakening the film, such as soaps, but these will not be considered as part of this class.)

Very little work done on the effect of chemicals on starch films has been published. In contrast to the use of chemicals to modify adhesives, such as the glues for postage stamps, this field is comparatively new, and much of the work is still included in the category of carefully guarded secret industrial information

One of the first patents on this sort of treatment was a French patent of 1874 to Gerard, who used caustic soda to produce a "vegetable glue" called by him "apparatine." Caustic soda and caustic potash have the property of forming a very adhesive paste with starch solution, either cold or cooked. If these pastes are heated too much while still alkaline, the starch will caramelize, turning brown. For sizing use, they should be practically neutralized with acids, such as sulfuric, acetic, or hydrochloric. Excess acid will destroy much of the viscosity of the paste, as well as being detrimental to machinery and to the yarns. Potato starch paste properly treated with caustic soda will keep its viscosity for days, instead of losing it gradually over a few hours as the pure paste does.

Borax has a unique effect on starch, stiffening the paste and producing a paste which is very cohesive but will not adhere well to other materials. With the proper amounts, a paste can be produced that will not feel wet but may be rubbed into a gummy ball in the hands.

Calcium, magnesium, and zinc chlorides produce the familiar "chloride gums," when mixed in the proper proportions with starch pastes, either cold or hot. The properties of these gums may be varied within very wide limits by variation of the proportions of chlorides and changing the temperature of treatment. These pastes make excellent flexible and elastic films and are much more transparent than ordinary starch pastes.

Ammonium thiocyanate will gelatinize starch without the necessity of heating. Fairly strong solutions are required. Other salts that have been used for modification of starch pastes are sodium

Recommendations of Cabinet Committee on Small Business

● IN ITS first progress report to President Eisenhower since its appointment on May 31, 1956, the Cabinet Committee on Small Business made the following recommendations which express its conclusions concerning the "legislative and administrative actions that are needed to enable small businesses to improve their competitive positions and their chances of survival and growth in our evolving economy":

1. That the taxes imposed on business corporations be modified by reducing the tax rate from 30% to 20% on incomes up to $25,000.

2. That business be given the right to utilize, for purchases of used property not exceeding $50,000 in any one year, the formulas of accelerated depreciation that were made available to purchasers of new property by the Internal Revenue Code of 1954.

3. That corporations with, say, ten or fewer stockholders, be given the option of being taxed as if they were partnerships.

4. That the taxpayer be given the option of paying the estate tax over a period of up to ten years in cases where the estate consists largely of investments in closely-held business concerns.

5. That the President arrange for a comprehensive review of procurement policies and procedures of all departments and agencies, including the legislation pertaining thereto, with a view to facilitating and extending the participation of small businesses in work on Government contracts.

6. That the President direct departments and agencies engaged in extensive procurement to adopt procedures which would insure that a need for advance or progress payments by a bidder will not be treated as a handicap in awarding a contract, and which would facilitate and accelerate the making of such progress payments as may be requested by small suppliers under Government contracts.

7. That the Renegotiation Board clarify the fact that, although a contractor who subcontracts work may not reasonably expect to be allowed as large a profit thereon as if he had done the work himself, the practice of subcontracting —especially the extent to which subcontracts are placed with small businesses—is encouraged by giving it favorable consideration in determining allowable profits.

8. That the life of the Small Business Administration, which is now scheduled to expire in mid-1957, be extended.

9. That the maximum amount of an issue of corporate securities which the Securities and Exchange Commission may exempt from registration be increased from $300,000 to $500,000.

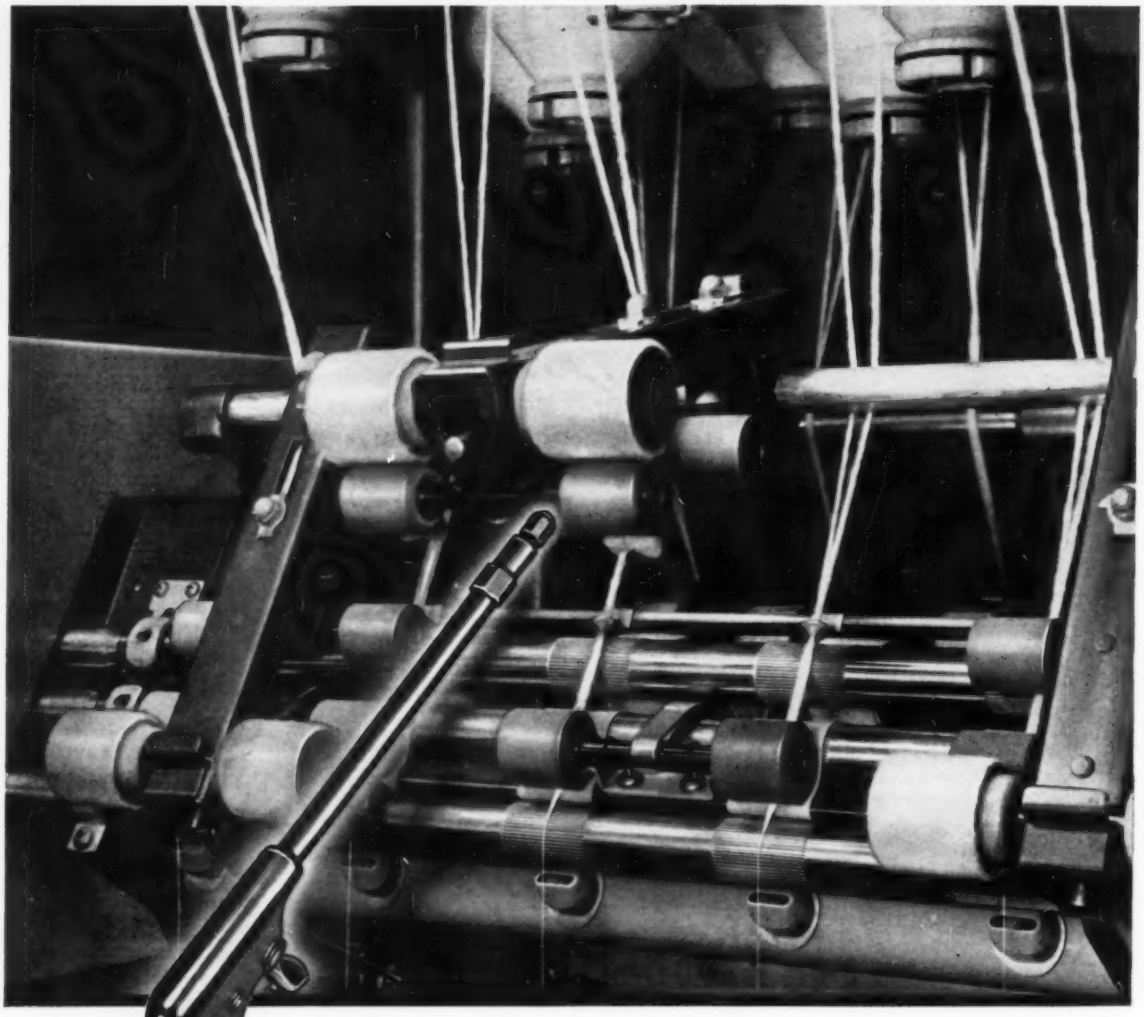
10. That the President call a Conference on technical research, development and distribution, for the benefit of small business.

11. That legislation be enacted to enable closer Federal scrutiny of mergers.

12. That procedural changes be made in the antitrust laws to facilitate their enforcement.

13. That wage reporting by employers for purposes of social security records and income tax withholding be simplified.

14. That the Office of Statistical Standards of the Bureau of the Budget undertake a comprehensive review of the reports and statistics required of small business.



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Commercially Obtainable Size Compounds. Before we close the discussion of materials for sizing, it seems expedient to say a few words about the various compounds commercially obtainable for slashing.

The question of a mill making its own sizing compound is often discussed, principally on the basis of economy. Certainly as far as the question of cost of materials alone is concerned, it would be cheaper. In the same way it would be cheaper if a man made up his own cosmetics for his wife, or his own prescriptions for treating his family. It would be cheaper as far as cost of materials is concerned if the mill bought its own oils and pigments and mixed its own paints.

In many cases, however, the cost differential would be very small. Sizing companies buy in much larger quantities than the individual mill would, and enjoy quantity discounts. The cost of maintaining a laboratory at the mill to check on the quality of the raw materials would be much higher proportionately. The balancing of formulas in the mill would not be as delicate; where the commercial sizes are blends of from 6 to 15 or sometimes more ingredients, a formula of this type handled in the average slasher room would be subject to a very good chance of often going astray through normal human error. Very careful control methods would be required, and capable technical help would be absolutely necessary.

But the most important thing that the mill pays for when it buys commercial size compounds from a reliable firm is the experience of many technical experts who are not the usual laboratory type of theorists alone, but who combine practical experience in many mills under all sorts of conditions over many years with the laboratory facilities maintained by the sizing companies.

This experience is invaluable to the size manufacturer in learning which of many thousands of possible ingredients will do the best work for the least cost, which raw materials are the most uniform, and what properties are required under varying sets of conditions.

Furthermore, the services of the sizing specialists as textile engineers in the weave room and slasher room have often been worth many times over the cost of the compound. The real value of all this can only be appreciated by the luckless superintendent who has at one time decided to experiment with an inferior compound, and ended with rotted slasher blankets, and a weave room full of bad warps, with all the weavers working at top speed to keep the looms running, cursing the slasher room meanwhile.

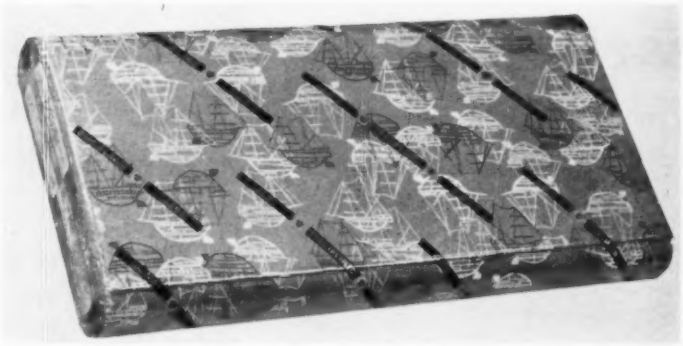
EDITOR'S NOTE: In the seventh article of this series, which will appear in the next issue, the author discusses analysis and testing of materials for sizing. Why analyses are misleading, interpretation of results, what to test, and test methods are topics considered.

How Bates solved a piece goods packaging problem

● OVER a long period of time Bates Fabrics, Inc., had been faced with the perplexing merchandising problem of proper packaging of their Disciplined Fabrics in a highly competitive market. Goods had to be presented in attractive packaging that would keep its shape and offer effective protection despite rough handling encountered on store counters and shelves.

When cellophane, which provided the proper transparency, had been originally used, packages tended to dry out and break open, with the result that altogether too many packages were returned.

In the meantime the Clopay Corp. had introduced a .001″ (1 mil) polyvinyl chloride extruded film produced under the name Clopane, clear, air-tight, watertight, moisture-proof, and heat sealable material. The Bates organization decided to experiment with the new packaging material,



which seemed to combine the desired qualities of transparency and durability.

The tendency of Clopane to curl, shrink, and otherwise lose its shape when exposed to heat posed a problem to high speed printing, but these difficulties were solved.

Clopane is now printed by rotogravure process in a variety of transparent inks, opaque inks, and metallic colors—any art work or Kodachrome transparency in full color, tone work, or color process can be reproduced.

The printed package takes casual handling without damage, and stays soft and flexible. Even under rough handling it provides long shelf-life.

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Required Lap Scale Reading

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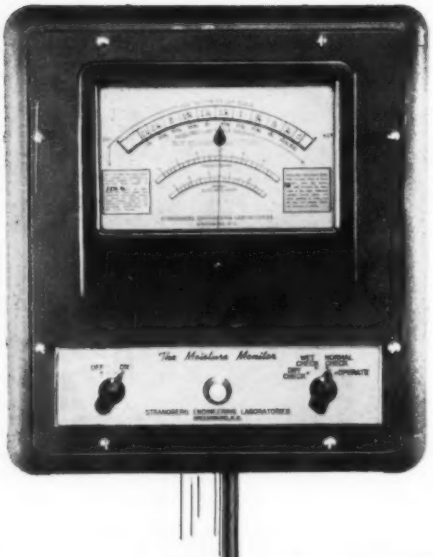

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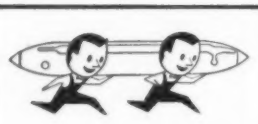

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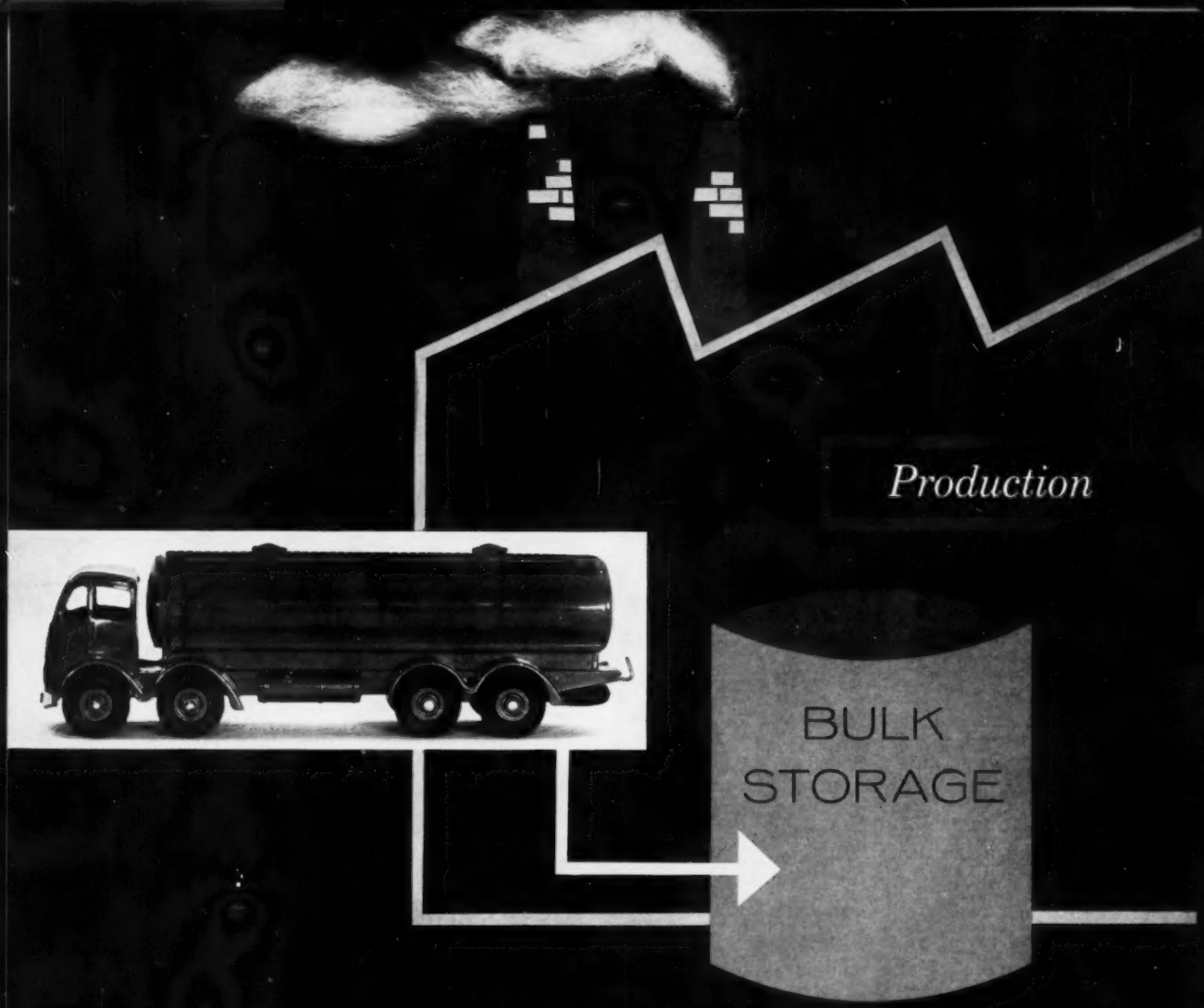

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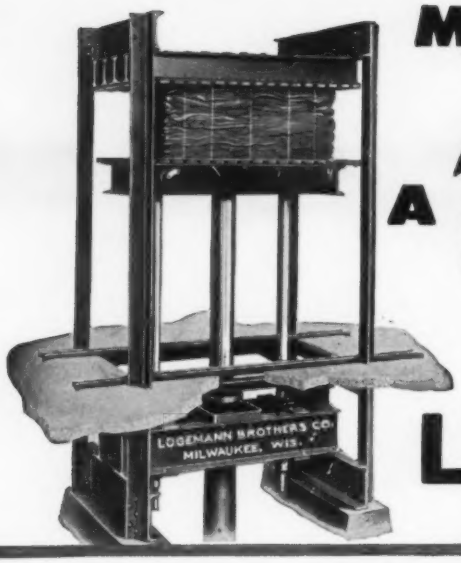

Open balers for finished goods may be hydraulic or power-driven. Give platen dimensions required, maximum height of pile to be compressed, number of bales per hour, when requesting information on open balers.

Tell Us Your Baling Problems

That's the best way to get the right answers to low-cost time-saving baling. During our sixty years of building balers for the textile industry we've solved many a baling problem for mill owners. Our engineers know how to make baling operations pay their own way in time and labor-savings, in speedier, more reliable handling of bales, in lower maintenance cost. Many Logemann balers have been in profitable operation since the turn of the century—evidence of the ruggedness, durability, and long service life of Logemann baling presses.

In the interests of better baling operations in your plant, find out what Logemann balers can do for you. Tell us what your specific problem is. We'll gladly show you how it can be answered in terms of better bales at lower costs and make a specific recommendation based on your requirements. Write for information today.

Box balers for waste may be obtained in either the hydraulic or power-driven type. Mention the kind of waste to be baled, how much in how many hours, the preferred size or weight of bale when inquiring about box balers.

LOGEMANN BROTHERS CO.

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LUMMUS
PEPPER-SHAKER
OPENER

MADE BY
LUMMUS COTTON GIN CO.
COLUMBUS, GA., U.S.A.

To Deal with a New Problem...

The constantly increasing amount of fine pepper trash in cotton

SEE IT AT THE ALDRICH BOOTH IN GREENVILLE

Made by LUMMUS COTTON GIN CO.
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Get a quotation on PLATT PRECISION *machinery*

COTTON OPENING, CARDING,
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CARPET LOOMS

Lower installed cost of Platt machinery reduces your capital requirements. Smooth operation and longer machinery life reduces your manufacturing costs. To get the most for your dollar, compare before you buy. *Engineering facilities offered mills are of the highest calibre and are backed by Platt's world wide experience.* A complete stock of supplies is carried in Charlotte, N. C.

ATKINSON, HASERICK & CO., INC.
ENGINEERS & AGENTS FOR THE
WORLD'S LEADING TEXTILE MACHINERY
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PLATT BROS. (SALES) LTD.
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MARKETING THE TEXTILE MACHINERY MADE IN THE WORKS OF
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New York City . . . where Dow caustic works for chemical manufacturers.

DOW

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DEPENDABLE CAUSTIC SODA RESEARCH IS ASSURED FROM DOW

Dow is the one producer, you know, supplying caustic soda to industry everywhere. Wherever you produce, you're *sure* of getting rapid, dependable service from Dow.

Continual Dow *research* on processing that involves caustic now . . . or will years from now . . . develops ways for you to do it better, faster, at decreased cost. This creatively practical planning helps you to improved, more uniform products to sell profitably in new markets.

Then, too—there's multiplant production, flexible delivery network, prompt field technical service. Does Dow have *your* order? THE DOW CHEMICAL COMPANY, Dept. AL 751F-1, Midland, Michigan.

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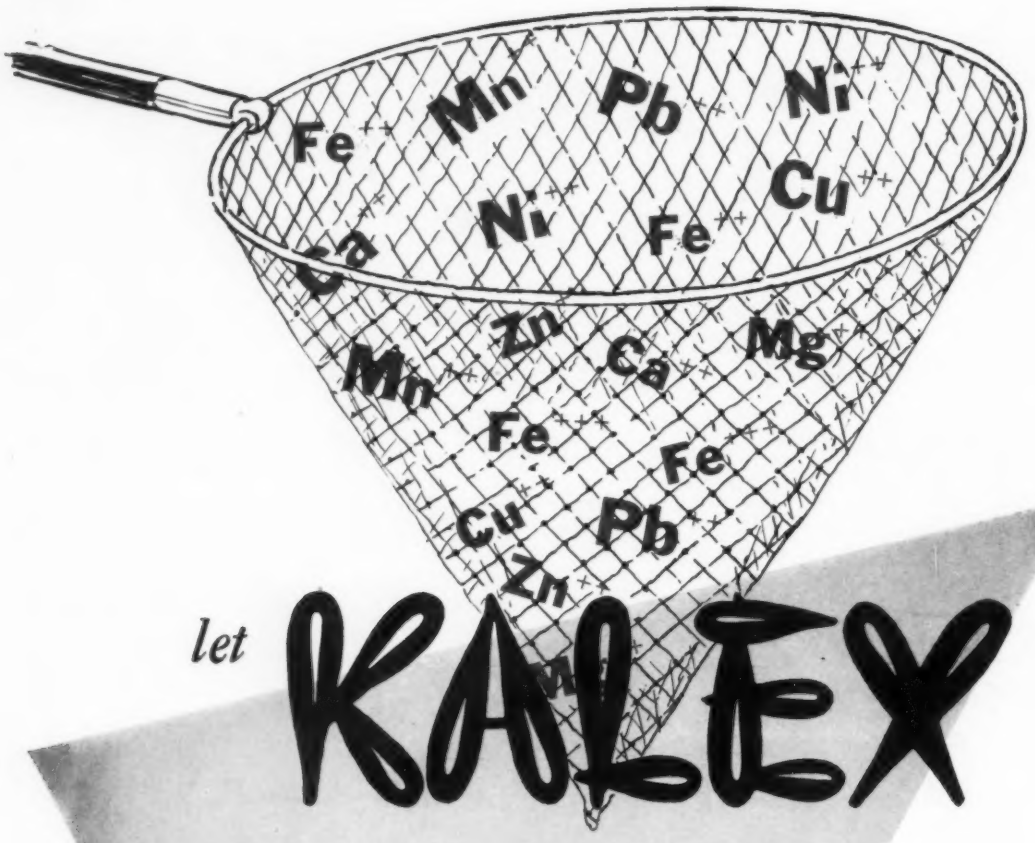

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clean up your caustics

Have you discovered the advantages of using Kalex compounds?

In binding and deionizing heavy metal and alkali earth ions in caustic solutions, these water-soluble organic ion exchangers exhibit remarkable chemical stability at *all* temperatures. In fact, the effective sequestering properties of Kalex compounds permit their use in a variety of textile operations — kier boiling, bleaching, mercerizing, dyeing sulfur colors and wherever traces of iron, zinc, copper, manganese, nickel, lead, magnesium and calcium are harmful.

KALEX E and KALEX IR are especially effective for complexing iron in caustic solutions; however, they also do an excellent job of chelating calcium, magnesium, copper, nickel and cobalt. Get in touch with us today and let us show *you* how KALEX products can improve your processes.

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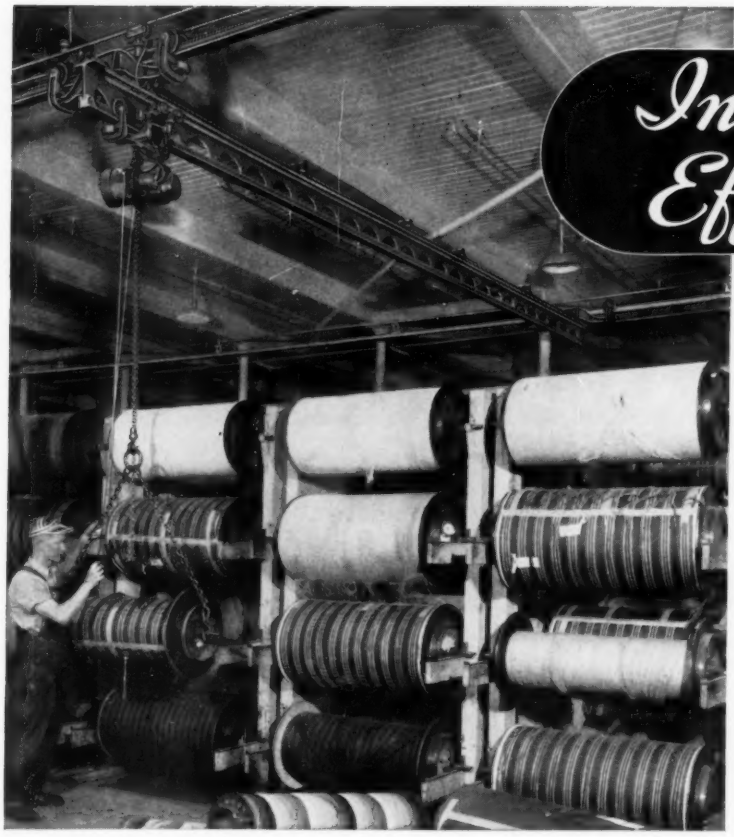

Introducing Efficiency

in the STORAGE OF BEAMS

The racks in this department store 27", 40" 44" and 60" wide warp beams. By rolling a beam to the end of the supporting rack arms, it is easily picked up without interfering with other beams.

BEAMS can be stored in very little space when a Cleveland Tramrail overhead system is used to handle them. With a proper rack layout they can be piled high and orderly and arranged for easy accessibility.

Each of the racks in the drapery cloth storage illustrated above takes eight filled beams, four on each side of a rack. There are four rows of racks with twelve racks per row. Thus a total of 384 beams can be stored in a small area. Any of the beams can be handled in and out of the racks without disturbing other beams.

A simple, inexpensive Cleveland Tramrail hand-propelled crane with electric hoist enables one man to handle the beams easily and safely. Because of the efficiency introduced the equipment pays for itself in a short period.

Cleveland Tramrail engineers will gladly cooperate with you in planning a modern beam storage arrangement and proper overhead tramrail system to serve it.

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BOOKLET No. 2008. Packed with valuable information. Profusely illustrated. Write for free copy

CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
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CLEVELAND TRAMRAIL
OVERHEAD MATERIALS HANDLING EQUIPMENT

FINER FABRICS THROUGH CHEMISTRY

Freedom of design . . . superior products produced at lower cost . . . more beautiful fabrics, longer lasting fabrics, money-making fabrics . . . manufacturers' wash and wear problems solved. These are the results of research—Wica research.

Wica is proud of its position in the textile chemical field today, a position attained through the tremendous strides in research made in Wica laboratories.

Research has enabled Wica to solve every manufacturing problem in wash and wear fabrics presented at the Wica laboratories. Research has made it possible for Wica to offer new resins at unbelievably low prices. Research in the Wica laboratories has brought new profits to the manufacturers who have learned of the individual attention Wica gives to each customer.

Wica

SPECTRUM ACCURACY

WICA CHEMICALS, INCORPORATED
OLD CONCORD ROAD • CHARLOTTE, NORTH CAROLINA

Wica research has made it possible to give you such products as these:

WICA CYCLIC UF RESIN
Low cost, high quality cyclic urea formaldehyde resin.

WICA RESIN 550
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WICAFIX
Complex resin condensates — dye fixatives.

WICASETS
Emulsion polymers for the textile and paper trades.

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Anionic, cationic and nonionic detergents, wetting and rewetting agents.

WICATEX
A group of highly developed finishes for cottons, woolens and synthetics.

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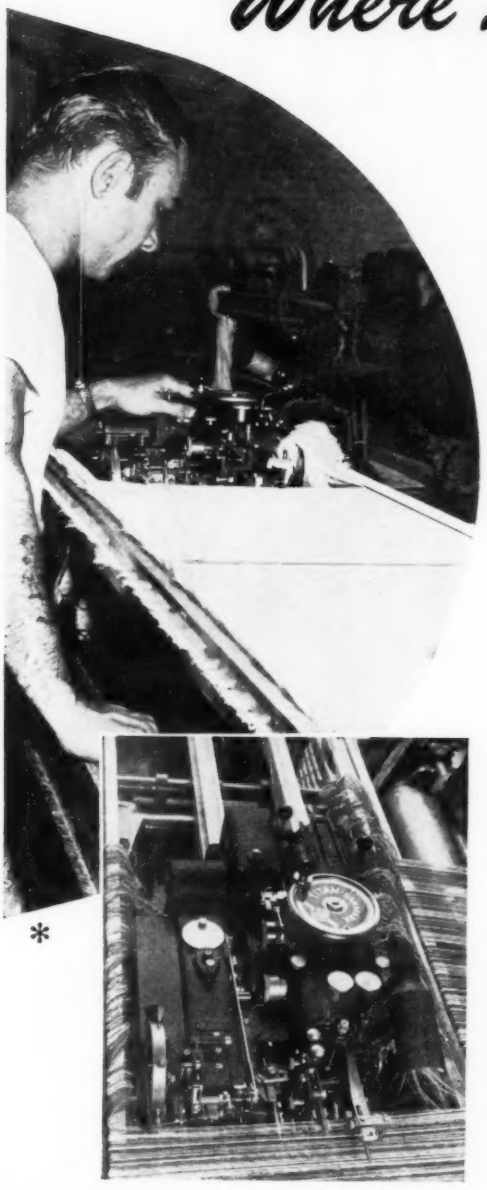
Where Quality Counts..



*

**Photo Courtesy The John P. King Mfg. Co., Augusta, Ga.*

Three available TITAN models:

Model GK-6A, universal, with Detector
Model GK-6B, universal
Model GK-6C, for tying unleased warps only

SELECT A TITAN WARP TYING MACHINE

The TITAN Warp Tyer is known throughout the industry for its top quality performance—its ease of operation—economy—and versatility.

The TITAN "leased-to-flat" method of tying, too, has won wide acclaim in cotton and spun rayon mills. By being able to tie (actually select) from an end-&-end lease in the pattern to the flat sheet in the new beam, the TITAN contributes to produce quality warps—straight warps with no crossed ends in the dropwires.

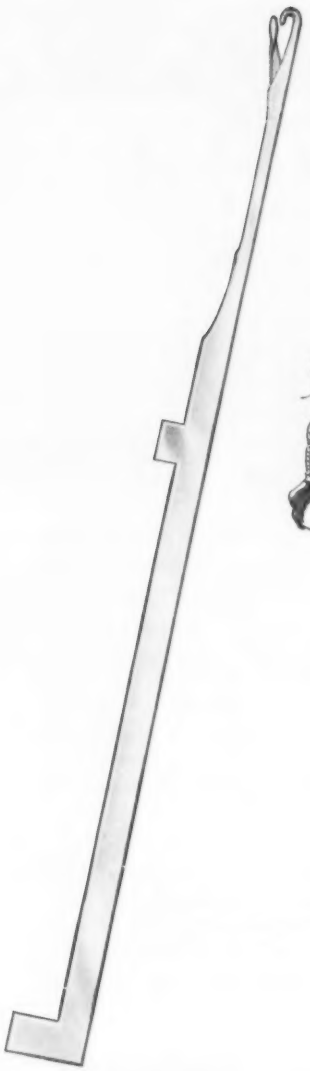
The TITAN ties warps of any width or fiber in ONE BITE and provides big production with multi-frame set-up. It is versatile because it ties "leased-to-flat", "leased-to-leased", or "flat-to-flat" warps. And it is easy to operate with very low upkeep cost.

For Maximum VERSATILITY, ECONOMY and PRODUCTION— You Can't Beat The TITAN!

You are invited to see the TITAN machines and the TITAN "leased-to-flat" method of tying demonstrated—a method which gives increased loom efficiency and reduced cloth seconds—at our booth 503 during the Southern Textile Exposition in Greenville, S. C. from October 1-5, 1956.

EDDA INTERNATIONAL CORP.

468 FOURTH AVE., NEW YORK 16, N. Y. CALHOUN TOWERS, GREENVILLE, S. C.



At the Nicest Parties

For fun, frolic or formal attire, nothing sells better than quality knit-wear from machines equipped with Arrow Latch Needles. You can depend on that extra margin of quality, because Arrow Latch Needles by Textile are always smooth, always strong, and always free in latch movement. Call today for Arrow Latch Needles, Flat Stock and Leaded Assemblies — prompt delivery from stock in Reading, Pa., Asheboro, N. C., and Manchester, N. H.

Arrow LATCH NEEDLES

Nearly every competitive advantage starts with the machine

Wire Products Division
TEXTILE MACHINE WORKS • READING • PENNA.
In the South: Asheboro, N.C. In the North: Manchester, N.H.
Builders of Textile Machinery Since 1900

Knitting Section

for *fast* changes!

TRANSGO

SPECIAL FORMULA
TRANSFER REMOVER

TRANSGO removes all types of transfers. . . printed, embossed, heavily pigmented and even so-called "permanent" types . . . from nylon hosiery safely, quickly and without effect to the material.

TRANSGO also saves time and money when used in conjunction with scouring agents to remove excess knitting oils, particularly hard-to-remove mineral oil.

For complete details on TRANSGO, and for help with all your finishing problems, call or write Fancourt today.

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SOLVING FINISHING PROBLEMS SINCE 1904

SOUTHERN OFFICE—846 S. MAIN ST., BURLINGTON, N. C.
CANADIAN OFFICE—CHEMTEX PRODUCTS, LTD.
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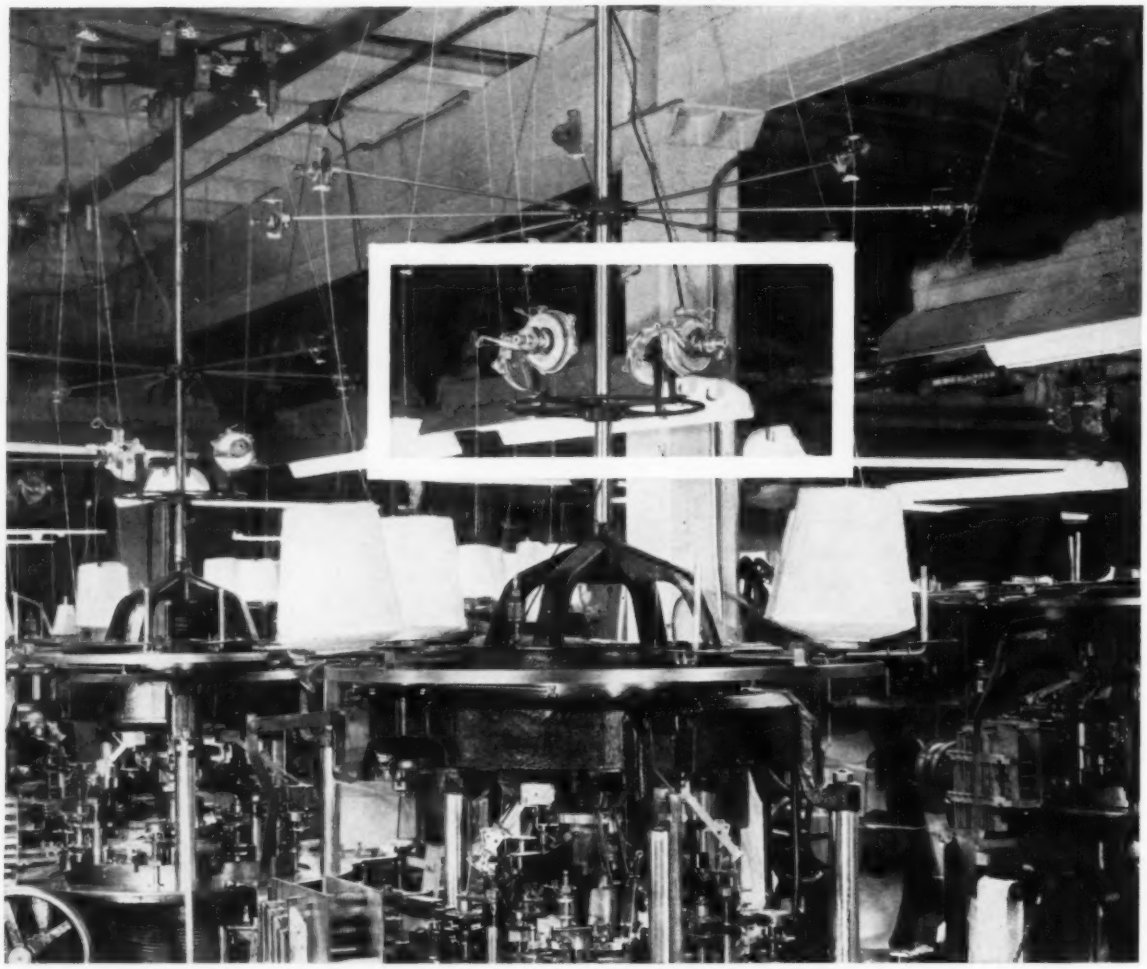
TENSION TROUBLES: How Kidde helps solve them at Playknit Mills, Inc.



Playknit Mills of West New York, New Jersey, users of "Orlon"* and "Ban-Lon"** yarns, recently equipped *all* their 4-feed Jacquard body-size machines, 12-feed Jacquard jersey and interlock machines with Kidde Standard Compensators. Mr. Alex Posner, owner of the company, reports these results since the installation: *1. Elimination of striped effect due to uneven tension. 2. Elimination of frequent stitch cam adjustment. 3. More uniformly sized stitches.*

Such outstanding results are not unusual. More than 750 textile mills throughout the world use Kidde tension devices to produce a far better product at a lower cost. You can do the same. For more information on Kidde's complete line, write Kidde today.

*Product of E. I. DuPont de Nemours, Inc. **Product of Joseph Bancroft & Sons.

Kidde

TRICOT AND RASCHEL MACHINES • WARPERS • CREELS • SLASHERS • WINDER-REDRAWS • TENSOMETERS • PROCESSING MACHINES • TENSION COMPENSATORS

MANUFACTURING CO., INC. — 42 FARRAND STREET — BLOOMFIELD, NEW JERSEY

SOUTHERN OFFICE — 267 W. MAIN ST., GASTONIA, N. C.

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Mr. Full-Fashioned Mill Manager . . . .

Here's an easy way to pinpoint your troubles

by R. D. Brackett
Exclusive

IF SOMEONE were to ask you, the manager or superintendent of a full-fashioned hosiery knitting department, what your production, bad work percentage, and needle breakage per week are, you would probably be able to give him some figures. And if he were to go further and ask if you were sure that these figures are correct you would most likely tell him, in all honesty, that you are certain they are. But, are they?

Ask yourself the following questions and see if you can answer them:

What machine or operator is giving the lowest production, the most bad work, and using the most needles?

Why does this condition exist?

What is the cause of the low production on one machine, the high percentage of bad work or needle breakage on another?

What is being done to improve the situation and how can I be sure it is improving?

If you can answer these questions, then ask yourself how you know this and how you can prove it.

With conditions as they are in the hosiery industry today, it is not only necessary but compulsory that the cost of knitting be cut to the lowest possible figure if a mill is to continue to operate.

A MACHINE TROUBLE report that is being used in some mills today is illustrated here. This report can be invaluable to you if it is properly kept and followed through from day to day and week to week.

It will tell you what each machine, each head, and each operator are doing. It will tell the oncoming operator how the machine is running. If one certain head is making a defective stocking, the oncoming fixer can tell at a glance what has been done on the previous shift to eliminate this defect, and thereby save time and parts by avoiding duplication of what has already been done.

This report is designed with the head numbers running consecu-

With this Machine Trouble Report it is possible to spot patterns of machine, operator, or fixer trouble before such factors get out of control. This report is maintained daily. The form is interchangeable with the one used in the weekly quality control inspection (p. 231).

TROUBLE REPORT

Name J. Doe Mach. No. 1 Date 6-1-56 Style 421 Turned In 13 1/4

Symbols: Narrow Menders—N. M.; Plain Menders—P. M.; Press Offs—P. O.; Cut Hole—C. H.; Hook Up—H. U.; Turn Welt—T. W.; Lost Set—L. S.; Other—O; Broken Needle—B. N.

HEADS	Left Set 1	Right Set 2	Hook Up Set 3	Plain Mender Set 4	Narrow Mend. Leg Set 5	Bad Selvage Leg Set 6	Mender Foot Set 7	Bad Double Selvage Set 8	Mender Top Set 9	Full Threads Set 10	Pin Holes Set 11	Uneven Stitch Set 12	Streaks in Fabric Set 13	Turn Welt Set 14	Set 15
1															
2															
3															
4	2N														
5															
6															
7						PO									
8															
9	CH	CH	CH	CH											
10															
11															
12															
13															
14															
15					NM						WT				
16															
17															
18															
19				BN											
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23															
24										BN					
25															
26															
27															
28															
29															
30															
31															
32															
Total Good Rose	28	29	28	29	29	29	31	30	30	29	29				

Needles used - 9

Hand-finished - Smoothed - Inspected

A summary report prepared weekly provides a picture of production by machine and operator. Such factors as production, bad work, needles issued, and needles used assist in keeping production up and over-all costs down.

WEEKLY REPORT

DATE WE 6-1-56

MACHINE NUMBER	NAME	PRODUCTION	PAIRS TURNED IN	REJECTS	BAD WORK PERCENTAGE	NEEDLES TURNED IN	NEEDLES ISSUED	NEEDLES USED
1	Jones	60	60	13/24	1.7	1	100	55
	Doe	(48)	NO	8/24	1.7	12/24	(30)	(25)
	Smith	60	51	(12/24)	(3.4)	(2)	100	63
2								
3								
4								
	TOTALS	168	151	28/24	2.4	3 1/2	500	368

ANNOUNCING THE NEW TURBO AD-96

Combination Preboarder and Finish Boarder

The new Turbo machine carries all the newest four cycle features, timed pre-heating and pre-conditioning of boards, timed solenoid controlled air expulsion, timed temperature controlled steaming cycle, timed air drying cycle, plus increased economies in steam consumption and shorter processing and drying time.

The AD-96 is a two operator machine with a double row of forms mounted on the collapsible conveyors, and if used on the one-boarding operation principle the AD-96 really replaces four machines (two preboarders and two finish boarders).

The AD-96 used for preboarding or finish boarding, separately, doubles the production of previous models, yet sacrifices none of the famous Turbo quality.

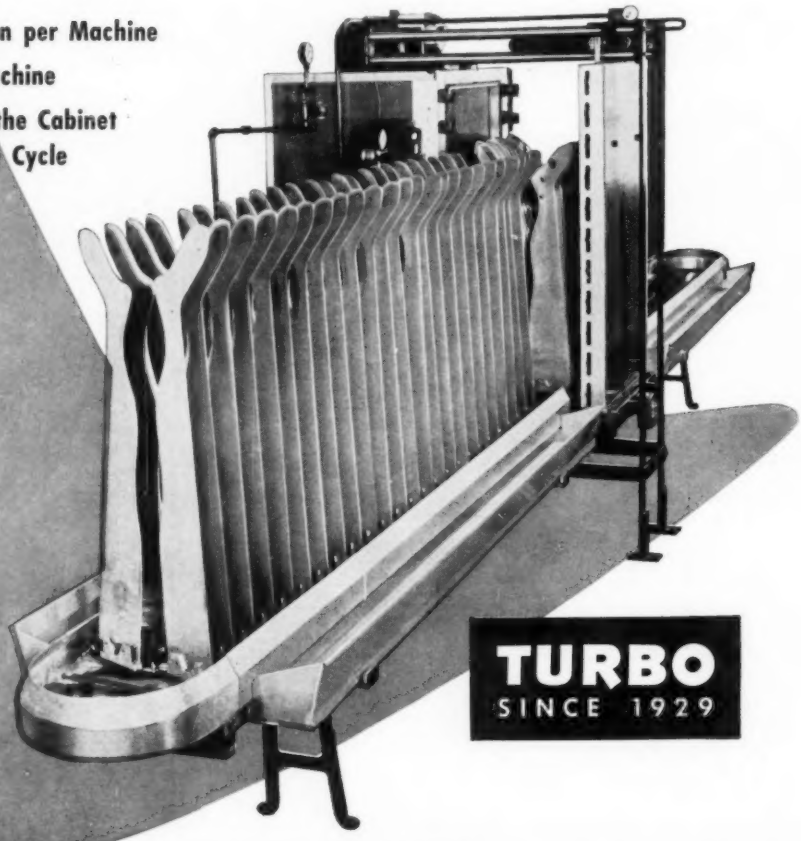
Built on the "Gentle as a Lamb" principle for quality, this new equipment offers quantity preboarding and finish boarding where floor space is at a premium.

Full details are yours for the asking — get in touch with Turbo today.

Double Production per Machine

96 Forms per Machine

48 Stockings in the Cabinet per Processing Cycle



TURBO
SINCE 1929

TURBO MACHINE COMPANY, LANSDALE, PENNA., U.S.A.

tively down the left side from 1 to 32 and the set numbers running across from left to right. If the machine makes a bad stocking on head No. 23 on the third set, the operator marks it down on the report beside the number indicating head No. 23 and in the column for the third set. He uses a symbol or abbreviation to indicate what the defect is.

Following are some of the symbols used and opposite each, its meaning:

POW—Press off welt
POS—Press off splicing
NM—Narrowing mender
BN—Broken or bad needle
POM—Press off main
HU—Hook up
BRM—Back rack mender
WT—Welt turn
PM—Picot mender
CH—Cut hole

If a set is lost or the machine is smashed or broken down, the operator or fixer indicates this, and the cause in the column for the set on which it occurred. If one certain head is making a defect, the fixer makes a note in the margin as to what has been done to correct it.

With this report you can tell at a glance what a machine is doing. You can tell if an operator on one shift seems to have more trouble than one on the other two shifts, or if the same conditions exist on all shifts. You can tell if a machine is making too many defects or breaking too many needles, and then concentrate your efforts on the cause to eliminate it.

This report should be kept each day on each shift, and then at the end of each week a weekly report (see illustration) should be prepared to show performance of each operator. The weekly report should give the following totals: production, needles issued, needles used, number of rejects returned to operator as charges, and number of menders turned in.

Each Monday afternoon a foreman's meeting should be held and the weekly reports should be carefully studied and compared against the reports of the previous week to see if the same condition still exists or if improvement has been made.

If you will keep this report for one month, you will be surprised at the pattern it sets up and the picture you will get. You might find that one or two machines or operators are causing your over-all production to be low, or your bad work and needle consumption to be high. You will have a point from which to start and know in which direction to work.

THESE same forms may be used to help you with quality control. A good idea is to divide your machines into groups and assign a certain group of them to one certain fixer. Let this fixer be responsible for streaks, sleazy stitches, and other defects that might lower the quality.

Have one set from each machine closely inspected once each week for streaks, sleazy stitches, etc. Have the inspector indicate any defect found on the Machine Trouble Report by the head number on which it was made. Give the fixer these reports so he can check the individual heads indicated and correct them. After the head has been corrected, the fixer should make a note on the report as to what was done. This report will eliminate the necessity of changing a whole set of verge plates at one time.

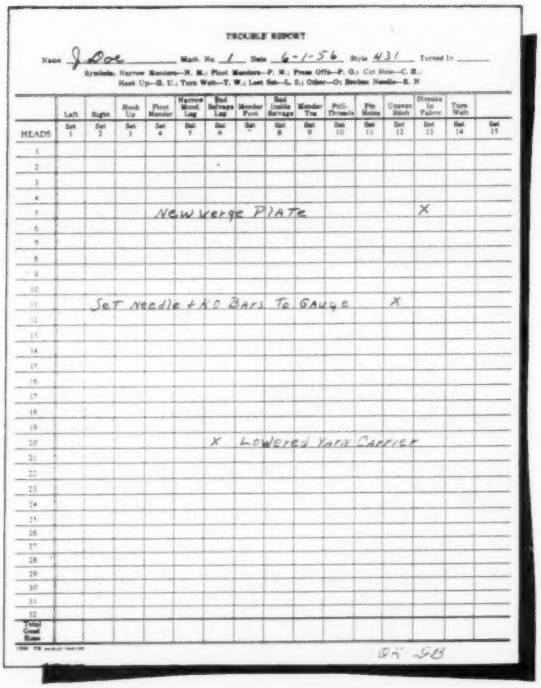
After the fixer has corrected the defects he should initial the report and return it to you. You can easily and quickly compare it with the report made last week and assure yourself that the defects have or have not been corrected.

Some will argue that all of this will entail too much paper work, and at first glance this would seem to be true. However, this is not the case at all. Once the system is set up and put into operation, it is fairly simple and the paper work is not difficult to do.

If you will try this system for one month, I can assure you that not only will you know what each machine and each operator are doing; but you will even know what each head or section is doing, and your quality will be good.

Other than printing the forms, it does not cost anything. So, why not give it a trial?

A Weekly Quality Control Report keeps a spot check on the machinery condition. When the returns are in each week, it is possible to determine how well the fixers are maintaining their sections. From week to week these reports reflect a pattern that assist the supervisor in planning a course of corrective action.


TROUBLE REPORT

Name J. Doe Mach. No. 1 Date 6-1-56 Style 431 Turned In

Symbols: Narrow Mender—N. M.; Picot Mender—P. M.; Press Offs—P. O.; Cut Hole—C. H.; Hook Up—H. U.; Turn Welt—T. W.; Lost Set—L. S.; Other—O; Broken Needle—B. N

HEADS	Left Set 1	Right Set 2	Hook Up Set 3	Picot Mender Set 4	Narrow Mend. Leg Set 7	Bad Selvage Leg Set 6	Mender Picot Set	Bad Inside Selvage Set 8	Mender Toe Set 9	Pull-Threads Set 10	Pin Holes Set 11	Uneven Stitch Set 12	Streaks in Fabric Set 13	Turn Welt Set 14	Set 15
1															
2															
3															
4															
5					New verge PLATE								X		
6															
7															
8															
9															
10															
11			Set needle + K.C. Bars To Gauge									X			
12															
13															
14															
15															
16															
17															
18															
19															
20					X Lowered Yarn Carrier										
21															
22															
23															
24															
25															
26															
27															
28															
29															
30															
31															
32															
Total Good Runs															

OK TO MARKET [illegible]

SA-565

In This Section

Easy way to pinpoint f-f troubles 229
Stock to socks in 40 minutes 234
Dyeing and finishing sweaters of crimp-bulked nylon 237
Use NAHM stretch sock standards 237
Knitter hints No. 46 238

Also See

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New equipment 251-269

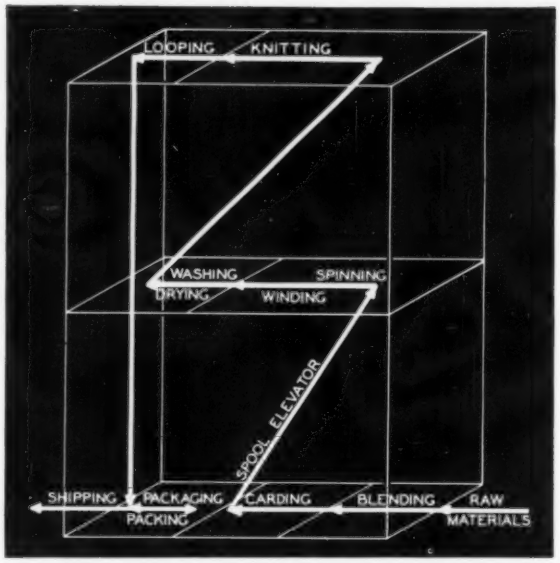
From stock to socks in 40 minutes

Staff prepared
Exclusive

THE SENECA Knitting Mills Co., Inc., Seneca Falls, N. Y., contains, in addition to its knitting department, a complete woolen spinning system, including 720 ring spindles; a washing and bleaching process; boarding; and packaging.

One of the advantages of such an integrated set-up is the speed at which raw material can be moved through to the finished product. Another is control. Both are illustrated in the accompanying picture story, which concerns the manufacture of white athletic (ribbed) socks.

The socks are a blend of 85 per cent 58-60s wool and 15 per cent 2½-inch crimped 6-denier nylon. The two-pound-per-dozen hose can enter the packaging line less than 40 minutes after the first bites from the sandwich mix are fed into the picker: blending, carding, and spinning can yield first production in about 15 minutes, it takes two machines 3 minutes to knit a pair of socks, looping takes 1 minute, washing and drying require 15 minutes, and miscellaneous operations require about 2 minutes.



Flow of materials at Seneca Knitting Mills.

Photo 1. At start of mill operation, Daisy, housepet of a mill employee and producer of a good 64s quality wool, inspects some of the 50-60s to be placed in the wool-nylon blend.

Photo 2. Blend is picked three times. The wool component of the blend is run through and oiled alone on the first run. The nylon is added dry on the second run. Both runs deliver to room at right rear through Truslow blender. For second run, wool and nylon are laid up sandwich style. Final run is also dry, terminates in bins in card room.

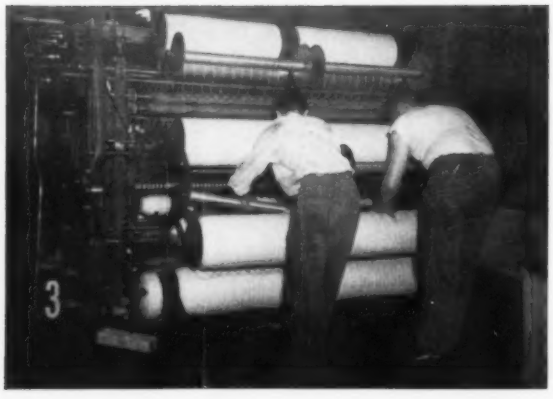
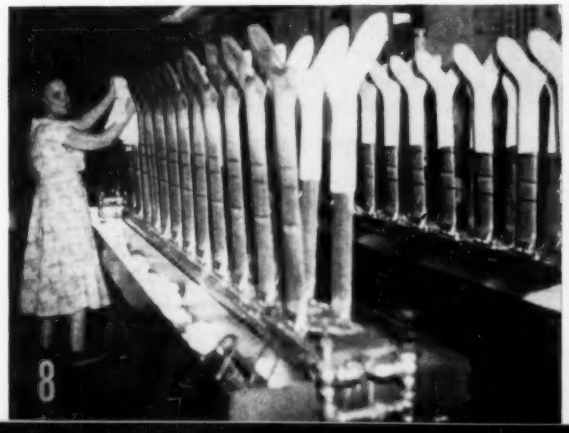


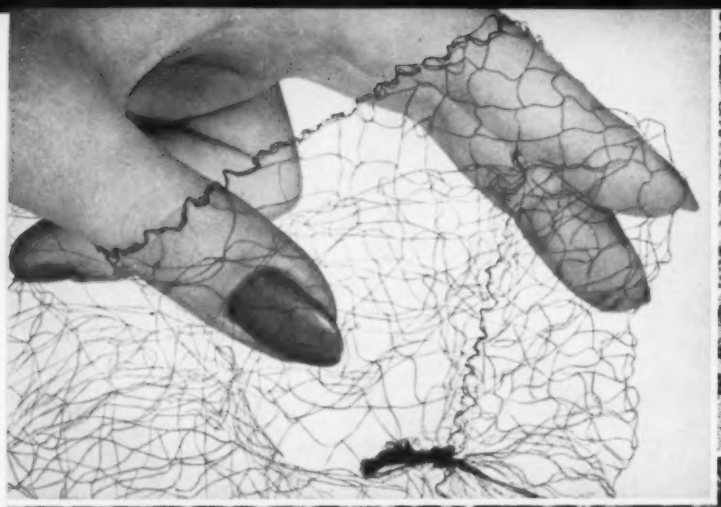
Photo 3. 220-grain roving is delivered from standard-set card. The 60 x 60 inch machines are set 28, 30, 32 (workers to cylinder in first breaker, intermediate and finisher). On Seneca's cards, workers on finishers are run in opposite direction from workers on first and second breakers. Wire on first machine is 28; 30 on second and finisher.

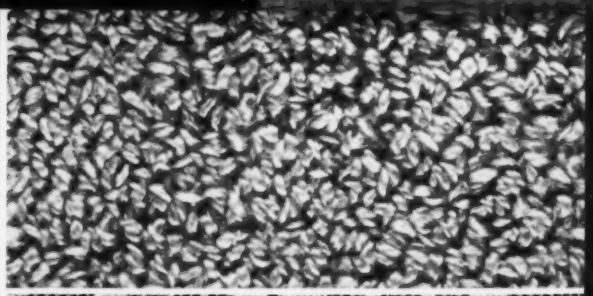
Photo 4. Five-inch ring frames deliver a 1½ run yarn containing 5½ turns per inch. Draft is 1.54. Spinning packages are wound onto two-pound cones for knitting. Photo 5. Twist setting in this chamber for 10 minutes with steam at 28 pounds pressure prevents spiraling and "running on the bias" in knitting.

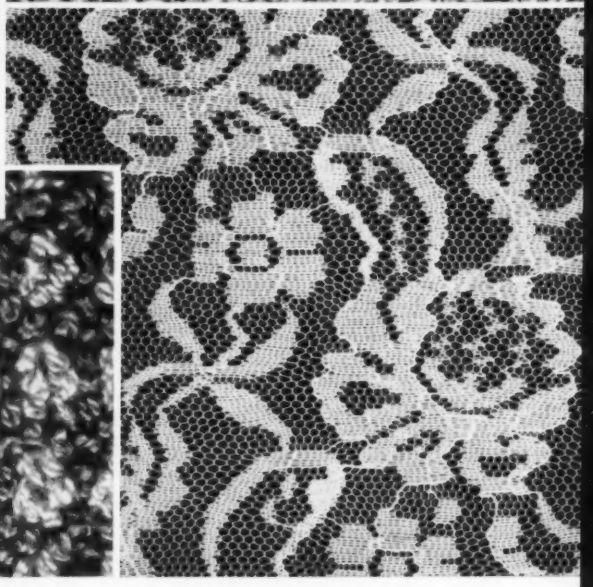
Photo 6. Socks are knitted to 10-inch length in a 2x1 rib. Machine is an 84-needle Scott & Williams Model HH. Knitter turns socks inside out when she doffs, to look for defects and prepare for looping. Looping on an eight-point machine follows. Photo 7. Sock is checked for whiteness during run in washer. Average washing cycle is 15 minutes; loopers turn socks outside in before socks move to washers.

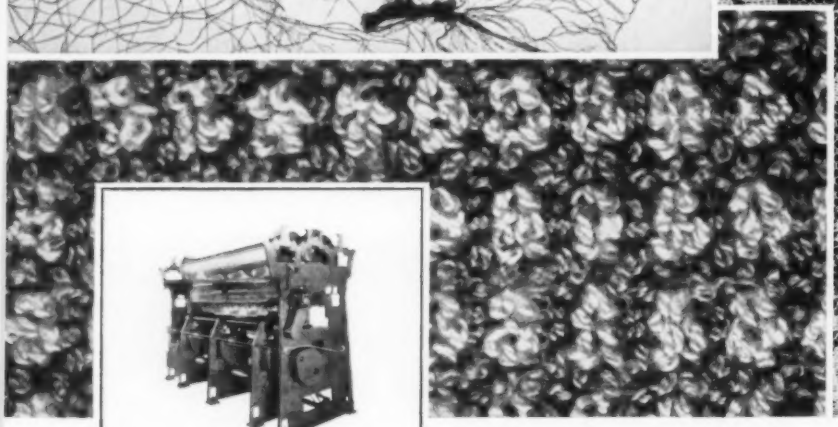
Photo 8. Drying forms rotate in 1½-minute cycle. Forms are fed with steam under 30 pounds pressure. Photo 9. Hand inspection and pairing is a key step. Defects are separated from firsts and sock lengths are checked and paired; even though socks are knitted and boarded to size, sock dimensions must be finally matched up by hand.

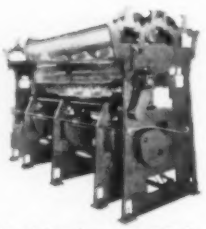












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—from hairnets to heavy carpet

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Why is the Kidde Knitter the most widely used Raschel type machine in the world? The answer is exceptional versatility coupled with outstanding speed and reliability.

The range of gauges of the Kidde Knitter will produce anything from the sheerest tulle to heavy carpet — all with equal dependability. And special attachments make it even more versatile:

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These are just a few of the advantages that account for the popularity of the Kidde Knitter, both with the knitter who specializes in one type fabric and the knitter who depends on flexibility to meet the requirements of his trade. If you specialize in any one of the following fabrics . . . elastic fabrics, tulle and various types of net, lace and lace edgings, shoe cloth, laundry nets, sport shirtings or carpeting . . . or if you need versatility encompassing many of these types . . . the Kidde Raschel Type Knitter can give you faster, more economical, more dependable production.

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We will gladly send you swatches of fabric and complete information on the range, speed and quality of production possible on the Kidde Knitter. Write today for details. Dept. KB3.

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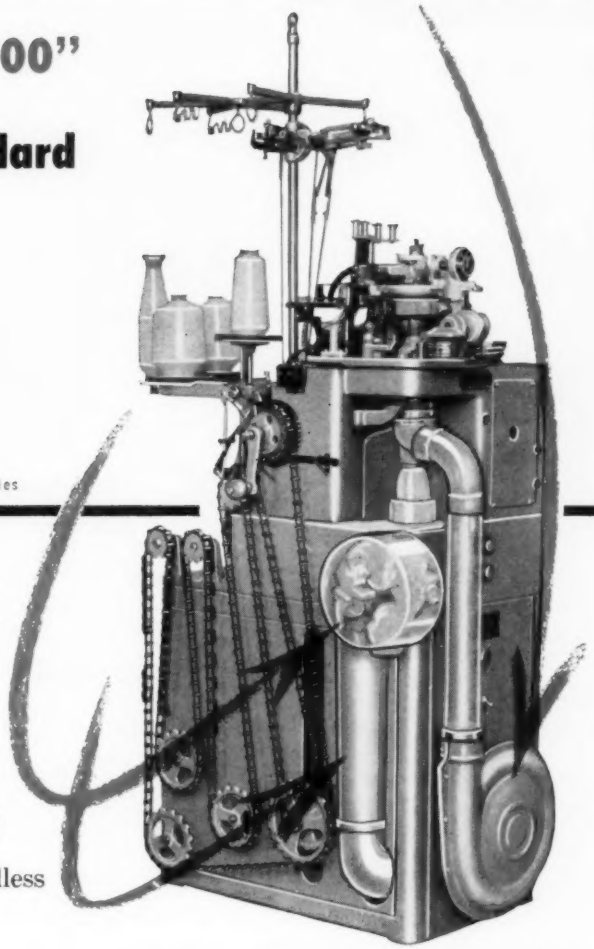
Stocking Quality!

*Patents Pending in United States and all Foreign Countries



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- Installation *does not* increase machine height!
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- Uniform tension is maintained regardless of knitting speed!
- Requires no resetting if machine is hand racked!
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- Totally self-contained unit—easily installed without auxiliary air inlets!

Compare—then decide to meet the *new* standard of production quality *now*, with the superior new Fidelity Automatic Tension Device . . . designed for use with the electronically controlled Fidelity "400" and other makes of knitting machines. Write today for details . . . or visit our showrooms.

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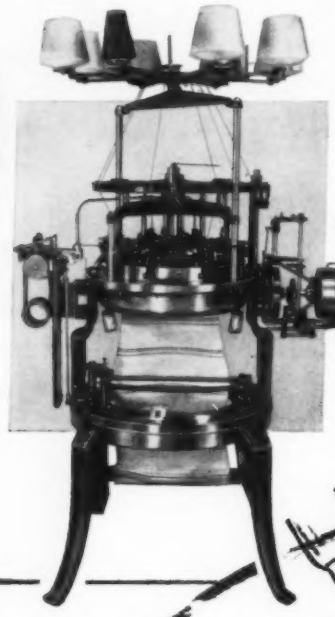

This Wildman Rib Fabric Striping Machine increases production through effecting combinations of a great variety of stitches (one by one or two by two) striped fabric of unlimited patterns — half cardigan, English or Round welt, French or Tubular welt and clearing courses or draw thread.

It works either as a single feed machine, or in any combination of feeds producing fabrics for cuffs, collarettes, sweater bottoms, underwear, outerwear, sportswear and beach wear.

Belt or individual motor drive — to fit your needs.

Investigate this most adaptable, flexible and versatile Wildman Rib Fabric Striping Machine today.

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Manufacturers of: **FULL FASHIONED MACHINES; CIRCULAR MACHINES FOR OUTERWEAR, UNDERWEAR, SPORTSWEAR, TRIMMINGS; STOP MOTIONS**

Dyeing and finishing sweaters of crimp-bulked nylon

● THE EQUIPMENT required for wet processing sweaters of crimp-bulked* nylon filament yarns is the same as generally is used for processing sweaters of other yarns, the Textile Fibers Department of E. I. du Pont de Nemours & Co., Inc., states in its Bulletin N-72. There is, however, one important difference in the procedure—they must first be allowed to develop bulk. This is done by a specific relaxing operation in which there is usually a 25 to 35% contraction in fabric area.

Here are some processing suggestions offered in the bulletin which also contains detailed information including procedures for dyeing with acid and disperse dyes and formulas for typical sweater shades:

To develop bulk, knitted transfer bodies (in strips or singles) and full-fashioned sweaters (after looping and cup seaming) are wet out thoroughly and scoured at 80 to 90 F with 1% "Duponol"** RA surface active agent. Sweaters are not bagged for this operation.

If the goods are dirty or spotted, they can be given an additional scouring for ten minutes at 120 F in a bath containing 2% "Duponol" RA and 2% tetrasodium pyrophosphate.

The goods are then rinsed thoroughly, centrifuged, and tumble dried at 140 to 170 F. Generally, the lower temperature is being used with jersey knit fabrics. Tubular goods usually are given a light steaming and then framed to straighten and remove any wrinkles before they are cut and sewn.

Full-fashioned sweaters and tubular knit sweaters which have been cut and sewn are steam-pressed to remove all wrinkles. Pressing should be done with the buck down but not locked. In some cases, dry cleaning is desirable to remove tenaciously held substances. This is done after sewing but before pressing. The size and shape of the garment is determined in knitting and cutting and cannot be altered by pressing.

Heat-setting under the proper conditions will (1) give the sweaters stability, (2) improve the hand and texture of the garment, and (3) minimize wrinkling introduced by dyeing. Bulked nylon sweaters can be heat-set in an autoclave or in nylon preboarding equipment at 25 to 30 psi (266 - 274 F) for 6 to 15 minutes. Where lower pressures and temperatures are used, a longer setting time is required.

For setting, the garments can be laid flat or hung over bars; but whichever method is used, they should be completely free of wrinkles. Boarding forms are not recommended because they generally cause wrinkles in undesirable locations.

After setting, the sweaters are placed in regular dye bags and dyed in paddle or rotary machines. Bags constructed of filament yarn are preferred to prevent fabric distortion during dyeing. The bags should be neither overloaded nor underloaded.

If the sweaters have become soiled, they can be prepared for dyeing by scouring with 2% "Duponol" RA and 2% tetrasodium pyrophosphate at 180 F for 30 minutes and rinsing afterwards.

Acid dyes generally are used for medium and dark shades. For the most part, acid dyes show good fastness properties on nylon, but they have a tendency to accentuate streaks and "tiger stripes." However, by careful dye selection and by using a pretreatment with "Duponol" D Paste, it is possible to minimize many of these undesirable irregularities.

Disperse dyes transfer well on nylon and tend to minimize streaks or "tiger stripes." However, these dyes are generally used for light shades and where maximum fastness to washing and crocking is not required.

In general, a pleasing hand and adequate static protection are obtained on sweaters of crimp-bulked filament nylon by the application of 1 to 2% of a cationic softening agent. This softener is usually applied at 120 F in the final rinse of the dyeing machine. The sweaters are then centrifuged and dried in a tumble type dryer at 140 to 170 F. After dyeing and finishing, the garments are ready for final pressing and packaging.

*Nylon yarns produced by the stuffer box crimping technique such as used in producing "Ban Lon" textured nylon and certain "Tycora" yarns. "Ban Lon" is a registered trademark of Joseph Bancroft and Sons Co., Wilmington, Del. "Tycora" is a registered trademark of Textured Yarns Co., Philadelphia, Pa.

**Registered Du Pont trademark.

Making stretch socks? Use NAHM standards

● SOCK buyers now have a new way to assure they get quality in stretch socks they will buy for fall delivery. The National Association of Hosiery Manufacturers is sending buyers a special mailing which gives the new standards for knitting stretch socks, which have just been approved by the members of the Association.

Industry-wide use of these standards is expected to result in a great improvement in the quality of stretch socks which will be available in retail stores. This should rebuild consumer confidence in this type of sock, and increase sales for stores which insist on socks meeting or surpassing these new standards.

Knitting standards have been set for both men's hosiery and also children's and infants' hosiery, and they provide for minimum measurements for both the relaxed sock and also for the amount of stretch which is required. All of these measurements are for minimum standards and leave an opportunity for sock manufacturers to knit a higher quality sock which would be even better than is required.

The selling of higher than minimum quality socks is considered of great importance to both knitters

and store buyers because of increased unit sales price and better customer satisfaction.

To equip buyers with tools to judge if the socks they buy meet these minimum standards, the Association is also selling at cost a set of sizing boards which buyers can purchase. With these boards a buyer can measure socks to be sure they meet the new standards set by the Association. These boards may be ordered from the Association either at 468 Fourth Ave., New York 16, N. Y., or the office at 901 Johnston Building, Charlotte 2, N. C.

For the convenience of knitting industry personnel who have not had an opportunity to read NAHM's minimum standards of measurement for stretch hosiery, the provisions are summarized below:

Briefly, these minimum standards apply to all types and constructions of men's stretch hosiery, other than half-hose or longer types, and to all types and constructions of children's, infants', boys', misses', and ladies' stretch socks and anklets, but not to long-length or knee-length construction, such as campus hose.

To meet the requirements of these standards it is necessary that the range of foot sizes covered by a stretch sock be given on the transfer, rider ticket, diaper band, or other means used to show the size range.

For men's slack socks, short socks, and anklets, the relaxed length of the foot before stretching shall be at least one-half inch less than the smallest size indicated on the sock; after stretching, the minimum length shall be at least three inches beyond the largest size designated. To measure the relaxed length of the foot, lay the sock out flat and measure the distance from the tip of the toe to the back of the heel along a straight line through the tip of the toe and the bottom of the heel gore; measure to the nearest one-half inch. To determine the stretched length of the foot, measure from the tip of the toe to the lower end of the heel gore. The minimum length of the leg after stretching shall be 15 inches, measured from the lower end of the heel gore to the top edge of the sock.

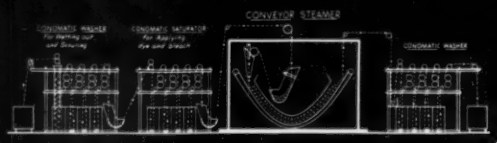
For infants', children's, boys', misses', and ladies' socks and anklets the following measurements apply: The relaxed length of foot, before stretching, shall not be more than 95% of the smallest size given on the transfer, rider ticket, or other means used to show the size range; after stretching, the minimum length of the foot shall be at least 25% more than the largest size indicated. The method for making these measurements is the same as that described for men's socks in the preceding paragraph.

For boys' socks, the relaxed length of the leg before stretching shall not be less than the relaxed length of the foot. For other than boys' socks, it shall be the same as the length provided for non-stretch types of hosiery in the appropriate tables of hosiery lengths and sizes contained in Commercial Standard CS 46-49, using the size range in these tables in which would fall the middle size between the smallest and largest sizes given for the stretch sock on the transfer, rider ticket, etc.

Copies of the standards are available upon request to the Association.

Knitter Hints No. 46

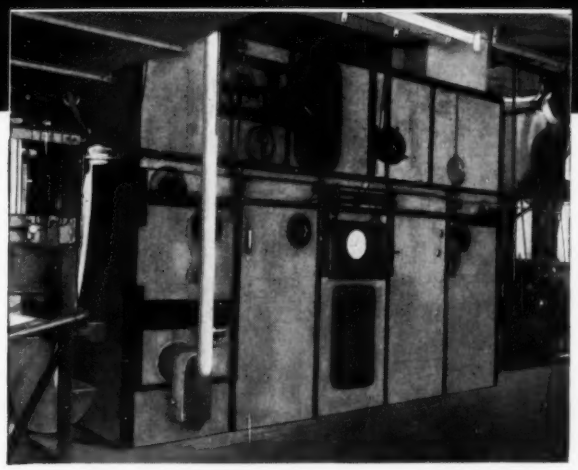
When using an unsized welt yarn in hosiery, fold the welts once and tie them flat to prevent wrinkling and creasing.



For improved quality of knit goods and profit making production . . . install a

Installation View of Con-o-matic Washer in Continuous Bleach Range.

PROCTOR CONTINUOUS BLEACH RANGE



Installation View of Steamer Unit in Continuous Bleach Range.

This range has been field proven, and is now producing highest quality tubular knits at the P. H. Hanes Knitting Co., in Winston-Salem, N. C. Through the use of a Con-o-matic Saturator, this range is adaptable to be used in applying fluorescent dye, which is one of the latest techniques of the knit goods industry.

Discuss the possibilities of adding a Proctor Con-o-matic washer to your present production set-up. The tapered squeeze rolls (Pat. app. for) assure a continuous trouble-free, tension-free operation.

Proctor engineers will be glad to discuss your knit goods problem with you at your earliest convenience. Why not present your problem to men who can help you.

Proctor

WRITE FOR DETAILS—PROCTOR & SCHWARTZ EQUIPMENT FOR THE TEXTILE FIELD

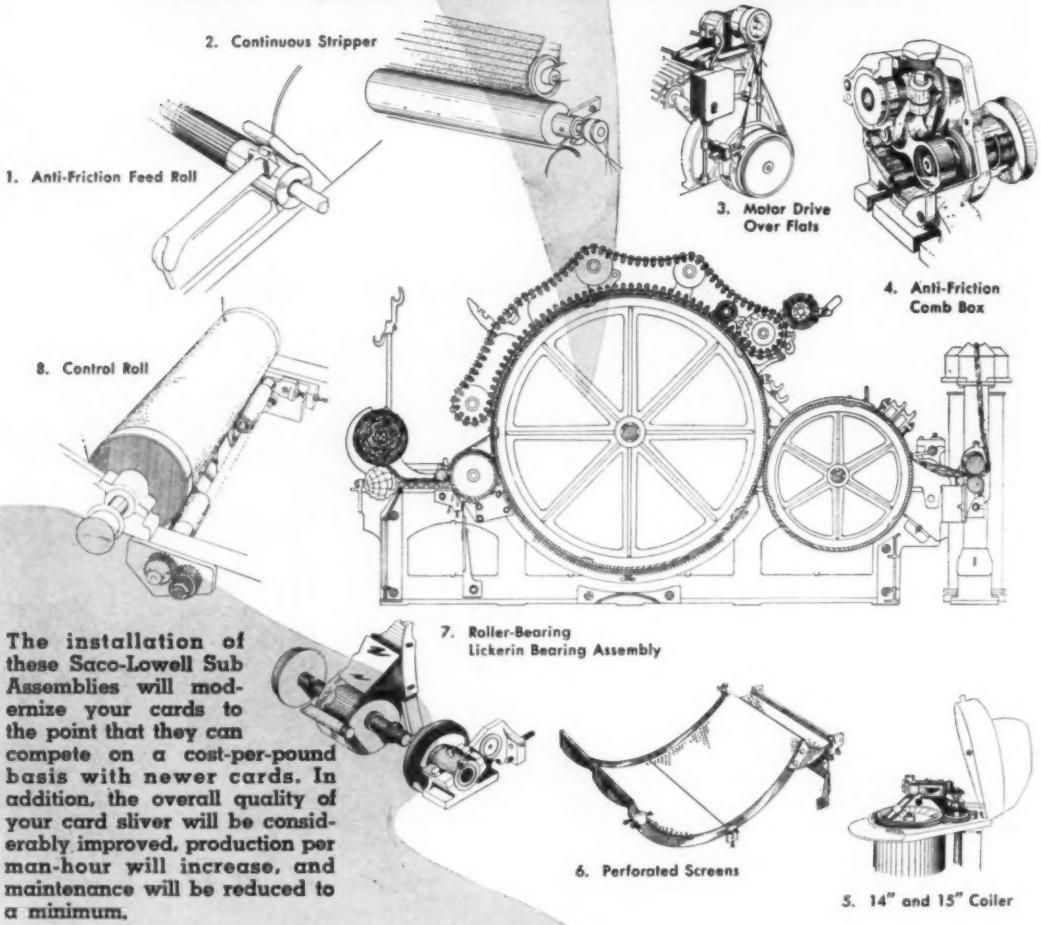
AUTOMATIC BLENDING SYSTEMS • WEIGHING FEEDS • PICKERS • SHREDDERS • BALE BREAKERS • SYNTHETIC CARDS • GARNETTS • DRYERS FOR FIBROUS MATERIAL • YARN DRYERS • HOT AIR SLASHER DRYERS • CLOTH CARBONIZERS • ROLLER DRYERS AND CURERS • LOOP AGERS FOR PRINT GOODS • TENTER HOUSINGS • OPEN-WIDTH BLEACH SYSTEMS FOR WOVEN FABRICS • MULTIPASS AIRLAY DRYERS • NYLON SETTING EQUIPMENT • CON-O-MATIC WASHERS • CONTINUOUS BLEACH SYSTEMS FOR PRODUCING TUBULAR KNITS EQUIPMENT FOR "SANFORIZED" ® SHRUNK-TO-FIT FABRICS • CARPET DRYERS

PROCTOR & SCHWARTZ, Inc.

Manufacturers of Textile Machinery and Industrial Drying Equipment. Philadelphia 20, Pa.

Modernize

YOUR SACO-LOWELL CARDS WITH THESE 8 SUB ASSEMBLIES


2. Continuous Stripper
1. Anti-Friction Feed Roll
3. Motor Drive Over Flats
4. Anti-Friction Comb Box
8. Control Roll
7. Roller-Bearing Lickerin Bearing Assembly
6. Perforated Screens
5. 14" and 15" Coiler

The installation of these Saco-Lowell Sub Assemblies will modernize your cards to the point that they can compete on a cost-per-pound basis with newer cards. In addition, the overall quality of your card sliver will be considerably improved, production per man-hour will increase, and maintenance will be reduced to a minimum.

Write to your nearest Saco-Lowell Office — a Saco-Lowell Sales Engineer will be glad to supply complete information on Card Modernization and suggest a specific program.

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60 BATTERYMARCH STREET, BOSTON 10, MASS.
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HOW OTHER MEN MANAGE

• Letters to Editor • Technical Discussion •
• Manufacturing Briefs • Kinks & Short Cuts • Comments from Readers •

Write to the Editors!

Readers are invited to make use of this section for further discussion of published articles, or for discussion of problems arising in the plant. Names will not be used without permission. Payment is made for practical articles or for letters containing manufacturing information.

Address: Editor TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 8, Ga.

Marking jig for knitting cams adds speed, accuracy

EDITOR TEXTILE INDUSTRIES:

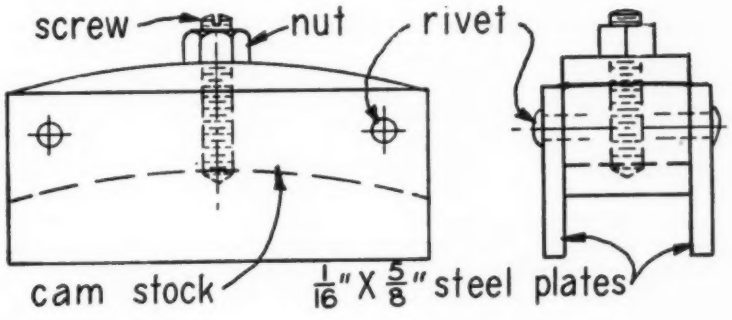
At no time in the history of hosiery manufacturing has it been more important to find easier, quicker, and better ways to get the little jobs done. For instance: The various makes of knitting machines such as Banner, Crawford, Bentley, and others have one thing in common; they all use drum cams of various heights and lengths.

The material for making drum cams can be bought in rings and cut to the desired lengths. This means that one, two, and sometimes three holes must be drilled and countersunk in the cam lengths.

It is very important that these holes be drilled in the center of the cam stock, especially when six or eight rows of various lengths and heights must be placed side by side on a main drum. In some cases drums have a channel to receive the short cams (with only one screw hole) to prevent turning of the cam while it is under stress from operating levers, etc.

The marking tool shown in the illustration was designed to assure center line drilling on any height of cam stock or ring of standard width. Simply slide the tool across the inside or outside surface of a short or long cam or a complete ring. There is no guess work: It never fails.

With the marking tool the center lines on a dozen cams or a dozen complete rings can be entered in a few minutes. If a milling machine is available, make the marking tool in a single piece by channeling a piece of bar stock to fit snugly over the width of the cam stock. Then drill, tap, and insert a set screw with a hard tip.



The illustration shows a marker made of three pieces of metal,

KINK CONTEST!

$100 will be awarded the winner

Send your entry now! This contest ends December 15, 1956

Every kink, short-cut, time-saver, or quality improvement suggestion entered in the contest will be paid for immediately upon acceptance. The $100 award will be made as soon as all entries are judged.

The contest rules are simple:

► All contributions must be postmarked not later than midnight, December 15, 1956.

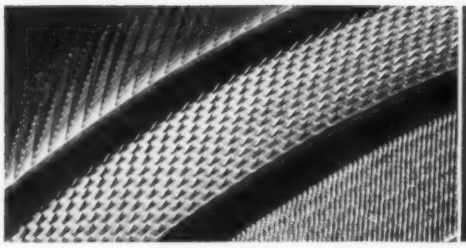
► No limit to the number of entries an individual may submit in any one contest.

► All entries paid for upon acceptance — no waiting. Extra payment for photographs that are usable. Extra consideration is also given kinks accompanied by legible pencil sketches or drawings.

► Entries must not have been published previously.

Send your contest entry to:

Editor TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 8, Georgia.



Ashworth Tips ON CARDING

No. 34 in a Series

MORE ABOUT THE LICKERIN

The importance of the lickerin assembly in its relation to the quality of carding cannot be overemphasized. From time to time, when mentioning the control of neps, the reduction of card sliver variation, raised or blistered fillets, and in matter pertaining to the feed end of the card, the lickerin and its adjacent parts have assumed a prominent place as factors to be considered when taking corrective measures.

Uniform separation of fibres from the fringe of picker lap is not only desirable but essential. A lickerin wound eight starts, one inch lead, is the best medium in present day use to achieve this, since there is a uniform distribution of points over the roll's surface. The six start (six strands per inch) lickerin offers equally uniform distribution but with fewer points per square inch. Those wound single strand, eight threads per inch, are often found with teeth in clusters and sometimes arranged in a definite pattern; neither condition being conducive to the optimum in fibre separation and both tending to contribute to nep formation and variation.

Card manufacturers have long since recognized the importance of the one inch lead when grooving lickerins — whether of the six or eight start type. Repair shops who make every possible effort to perpetuate the existence of these grooves and are not given to turning them off and substituting a single strand as an expedient are acting in the best interest of the mill.

Tips Nos. 5 and 7 mention that lickerins should be full size. The lickerin screen of every card was designed to conform to the specified diameter of the lickerin. When the latter is undersize it not only lacks concentricity with the screen but, as many card grinders have found, often requires filling of the shrouds in order to be set with the proper gauge to the cylinder. The reputable repair shop, by inserting wire of a height calculated to bring about the correct diameter of the lickerin over the points, helps in maintaining the proper relationship between the roll and the screen.

We believe that one highly important requisite for good carding is a sharp, full size lickerin, with the original grooving maintained with respect to number of starts and pitch, and the entire assembly, including mote knives, screen and feed plate nose in good condition and properly set. The mill should settle for nothing less.

ASHWORTH BROS., INC.

American Card Clothing Co. (Woolen Division)

Fall River*†‡ Worcester‡ Philadelphia*†‡ Atlanta†‡
Greenville*†‡ Charlotte†‡ Dallas†‡ (Textile Supply Co.)
E. G. Paules, Representative — Los Angeles, Calif.
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3 Factories • 6 Repair Shops • 7 Distributing Points

PRODUCTS AND SERVICES

Clothing for Cotton, Wool, Worsted, Silk, Synthetic Fibre and Asbestos cards and for All Types of Napping Machinery. Brusher Clothing and Card Clothing for Special Purposes. Lickerin Wire and Garnet Wire. Sole Distributors for Platt's Metallic Wire. Lickerins and Topflats Reclothed.

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Ashworth PIONEERS IN CARD CLOTHING

3 FACTORIES • • • 6 REPAIR SHOPS • • • 7 DISTRIBUTING POINTS

which can be done easily in plants without milling machines. Materials needed for the illustrated model are: one set screw with hardened tip, one piece of cam stock about 1½″ long (cam height is unimportant), and two pieces of 1/16″ x 1″ x 1½″ to be riveted to the sides of the cam stock.

CONTRIBUTOR No. 8907

Build this take-up for weaving slippery cloth

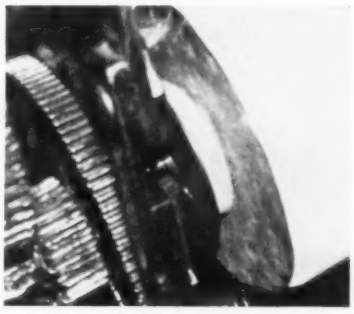
EDITOR TEXTILE INDUSTRIES:

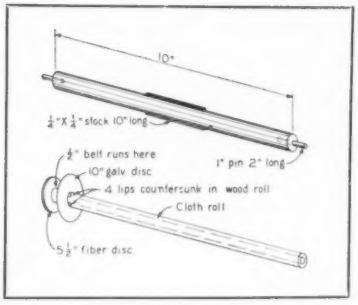
Our Modified D Draper looms have the spring-type take-up. The cloth roll is forced against the bottom of the sand roll, and as it builds up it forces the spring-controlled brackets down. This is fine for rough-surfaced cloth but is not so good for filament rayon, especially on counts like 2000 denier.

On the heavy denier cloths the roll builds up just so far and then the cloth begins to slip over itself and finally stops turning. On some cloths it slips so badly that it won't even start turning.

We had the prospect of quite a large order of cloth, provided we could make a light fabric of 60″ finished width. Our 62″ reed space was adequate for the width, but the take-up problem had to be whipped. By adopting the method described below, we have been able to produce fabric in 400-yd rolls easily.

The method we used was to wind the cloth roll down to its taking-out position and locking it there with





two pieces of ¼″ x 1½″ x 5″ flat steel. We bolted the steel to the cloth roll stands in a position over the take-up roll pins. We loosen one of the pieces when we need to doff the cloth.

A bar of 1½″ pipe, 63″ long, was used to fit inside the cloth roll. The cloth roll was a regular W-3 loom cloth roll cut down to the Modified D width. This pipe was fitted with two pieces of 1″ round stock driven into the ends of the pipe and fastened.

On the pipe we welded two strips of ¼″ x ¼″ stock 10″ long to keep the cloth roll from turning on the pipe. On the end of the cloth roll we secured a 5½″ fiber disk. One inch from this we fastened a 10″ galvanized metal disk to act as a flange. This left a one-inch space between the two disks which we use as a pulley surface. A crossed belt runs from the main shaft to this pulley to drive the roll. We moved the reed a little to one side to correspond to the position of the cloth roll. This movement was not great enough to cause filling troubles.

CONTRIBUTOR No. 8909

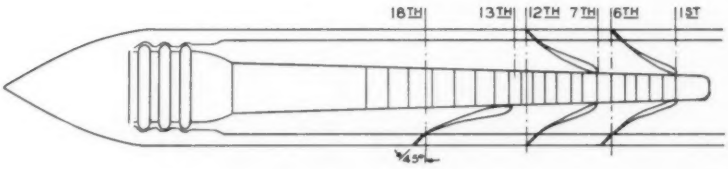
Nylon fishing cord cuts shuttle fur costs

EDITOR TEXTILE INDUSTRIES:

The method of placing nylon fishing cord in shuttles, if done properly, will effect a saving over the cost of the older fur and bristle method.

The system we use has proved quite successful with us, and in the hope that it will be useful to others I am passing it on for publication.

The first two loops are inserted in the shuttle wall at a point opposite the 6th ring on the quill.



The holes for the loops are drilled in opposite shuttle walls ¼″ from the top and bottom at an angle of 45 degrees. Let these loops extend to the first ring.

The second set is placed opposite the 12th ring with the loops extended to the 7th ring. A single loop is placed at the 18th ring to reach the 13th. Install in keeping with twist.

CONTRIBUTOR No. 8910

(almost) every textile manufacturer can benefit from Clinton® starches

THOUGH OF NO CONCERN TO THIS MASTER WEAVER, warp sizing is often the key operation in textile manufacture. Clinton starches answer every common requirement for warp sizing. Because of their uniform high quality, Clinton starches can be depended on to permit high weaving efficiency under a wide range of conditions. It's a fact that many mills use Clinton starches as a standard of comparison.

In the finishing operation, too, Clinton starches provide a consistently dependable means of producing the precise hand or weight which various fabrics may require. Make the most of your investment in machinery by relying on quality starches by Clinton.

...and remember technical service in connection with your specific problems is available without obligation.

Quality products

FROM THE WORLD'S CORN CENTER

CLINTON

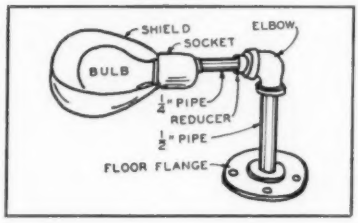
CLINTON CORN PROCESSING COMPANY
CLINTON, IOWA

Inspection light for knitting machines

EDITOR TEXTILE INDUSTRIES:

When attached to the backs of Scott and Williams knitting machines, this light makes it possible to inspect cloth from the front of the knitter. Such defects as runs and holes from bad or broken needles show up easily before they get below the take-up.

The light we use is made of a ½" pipe flange into which is screwed a three-inch length of ½" pipe to form a horizontal arm. The pipe length receives a ½" elbow which is reduced to receive a one-inch section of ¼" pipe. Upon this short ¼" pipe is screwed the standard light socket. A reflector, or half shield, is attached to cut down glare and to concentrate the light rays. A 60-watt bulb has proved adequate for us.



The pipe flange is mounted with stove bolts to the brace that runs from cylinder base to frame top.

On other types of knitters the flange must be fitted to an adapter, such as a piece of ¼" x 8" flat metal of suitable width and the adapter fitted to a convenient part of the machine.

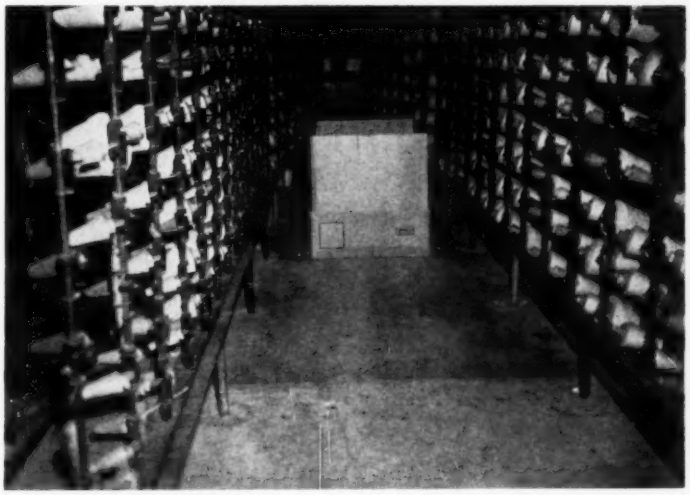
CONTRIBUTOR No. 8889

Low rail is an aid to creelers

EDITOR TEXTILE INDUSTRIES:

Our magazine creels were too high for our creelers to reach the top row of cones from the floor, and too narrow between the sections for us to build a wooden bench down each side which would be strong enough to support our creelers.

We solved the problem by building a flat metal rail, twelve inches high, for the creelers to stand on. We used wrought iron, ½" x 2", mounted at intervals on supports made of pipe sections. The pipe sections, in our case, are set in six inches of concrete, and are far enough away from the creels to allow space for creeling the bottom row of cones. Flanges should be used for mounting the pipe supports on wooden floors. Our installation (refer to picture) has been trouble-free for the eight years we have been using it.



CONTRIBUTOR No. 8866

Piston ring tightener is roll covering aid

EDITOR TEXTILE INDUSTRIES:

On our Model XD Draper looms we found on heavy work that the beam lever rolls which turn on the warp were becoming worn because they were getting stopped up with lint. These rolls are cork-covered, and we decided to recover them.

In re-covering the rolls we ran into difficulty because of their small circumference. The cork covering must form a perfect joint, or the roll will not turn.

We solved the difficulty by pur-

and it's ours!

Recently we ran this ad on ETHANOLAMINES in Textile Industries (The ad was red, too, come to think of it.)

Oh, the illustration was fine (we're kind of proud of our Orange, Texas plant), and the headline told you just what we were selling—ETHANOLAMINES. But if you read the fine print, you noticed that we were addressing petroleum processors instead of textile manufacturers.

Well, actually, petroleum people use a lot of ethanolamines, but this was a case of the engraver putting the wrong copy into the right plate. Maybe it was a foggy day. Anyway, what we meant to say was this...

ETHANOLAMINES

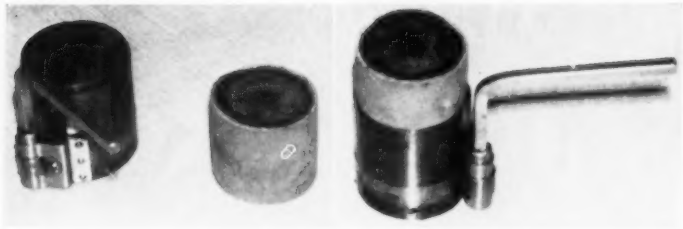
Making soaps with ethanolamines for dyeing, scouring and finishing? Allied's Orange, Texas plant—most modern in the industry—can supply you with ethanolamines consistently above standard specifications. Shipments in tank cars, tank trucks or 55-gallon drums available from Orange, Texas. Nationwide stocks for delivery by tank truck and 55-gallon drums. Phone or write for samples, quotations, literature, technical service with no obligation.

Dept. EA 3-29-1

Allied Chemical — NITROGEN DIVISION

40 Rector Street, New York 6, N. Y.

Ethanolamines • Ethylene Oxide • Ethylene Glycols • Urea • Formaldehyde • U. F. Concentrate—85 • Anhydrous Ammonia • Ammonia Liquor • Ammonium Sulfate • Sodium Nitrate • Methanol • Nitrogen Solutions • Nitrogen Tetroxide • Fertilizers & Feed Supplements



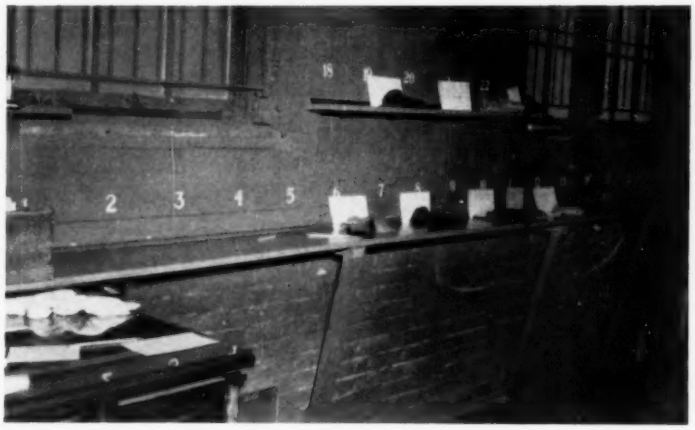
Beam lever roll is re-covered with cork and a perfect joint formed by letting the roll stand overnight in a ring tightener, used for installing piston rings and obtainable at any auto supply store. Left photo shows the ring tightener and a completed roll; right photo shows a roll halfway out of the tightener.

chasing at an automobile supply store a device called a ring tightener or ring squeezer. This gadget is used in installing piston rings, and consists of two strips of spring steel fastened with a bracket; it is tightened around the rolls with an Allen head wrench.

Now we cover the roll with cork, put it in the ring tightener, and leave it wound up tightly until next day. It is then ready for use, with a perfect joint.

CONTRIBUTOR No. 8853

System keeps check on hosiery dyeing progress



The problem of keeping dye lots straight where many lots and shades are running at once has been simplified in the dyehouse of Garnet Hosiery Dyeing Company, Inc., Allentown, Pa. by using numbered shelves.

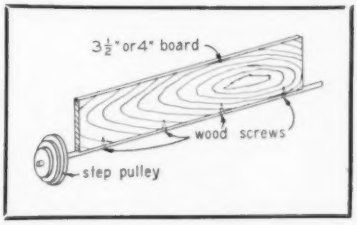
Located in the drug room, the shelves have numbered positions; each number represents one rotary dyeing machine. The work card and master color sample for each lot are placed beneath the appropriate number on the shelf. As dyers bring color samples from their machines, head dyers can quickly refer to the machines, lot data, and colors which they represent. —*Staff.*

HOW OTHER MEN MANAGE

Slub maker for wool cards

EDITOR TEXTILE INDUSTRIES:

We use this slub maker in place of the web support roll at the tape condenser of our wool cards. Construction is simple.



An inch board some 3½" to 4" wide is fastened edgewise with wood screws to a shaft which has a diameter to match the bore of our web support roll bearings. The unit is equipped with a step pulley which receives its motion from the grooved pulley on the dividing roll on the condensers.

We run the doffer faster than the tape rollers would normally take the stock. This speed allows the slub maker to lift the stock in waves or bunches to the calender or dividing rolls. The result is slubby yarn.

CONTRIBUTOR No. 8888

Move crates on casters

EDITOR TEXTILE INDUSTRIES:

When light machinery such as circular knitters is received from the plant it usually is crated with the machinery legs secured to skids or runners. If a hole is bored through the wood at each corner of the crate and a caster (such as is used on pianos) slipped into the hole, the machinery can be wheeled about with ease.

CONTRIBUTOR No. 8913

Chrysler uses I·R·C's New Nylon

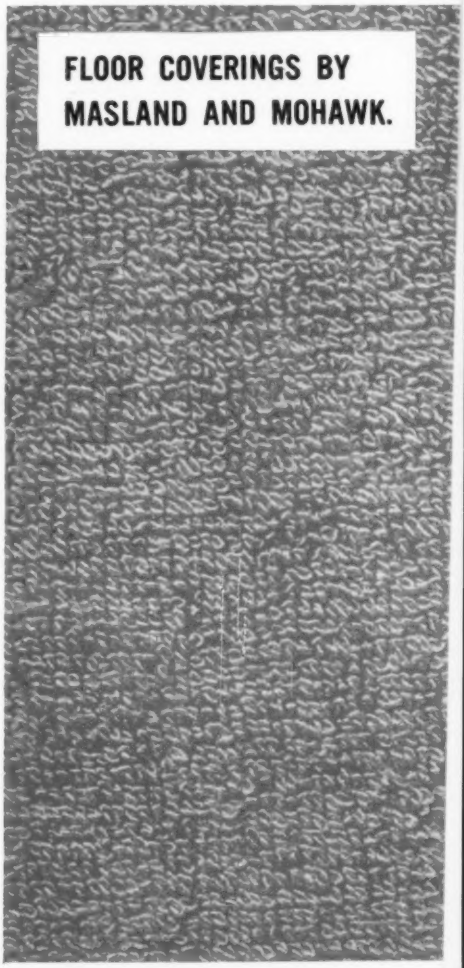
to make floor coverings and upholstery

WHY DOES CHRYSLER USE THE NEW NYLON IN THEIR IMPERIAL, CHRYSLER, DODGE AND PLYMOUTH CARS?

Because even a *small* percentage of The New Nylon, in automotive fabrics, gives wear advantages out of all proportion to the amount used. It means longer wear... it means greater crush resistance... it means less matting... it means higher abrasion resistance... based on comprehensive laboratory and practical test methods applicable to the automotive industry.

If you're making blends, or 100% nylon fabrics, look into the big advantages offered by The New Nylon Staple!

More Resiliency with less Crushability • Greater Strength
Better Luster • Better Crimp • Lower Dye Costs
Greater Resistance to Abrasion • New Economy



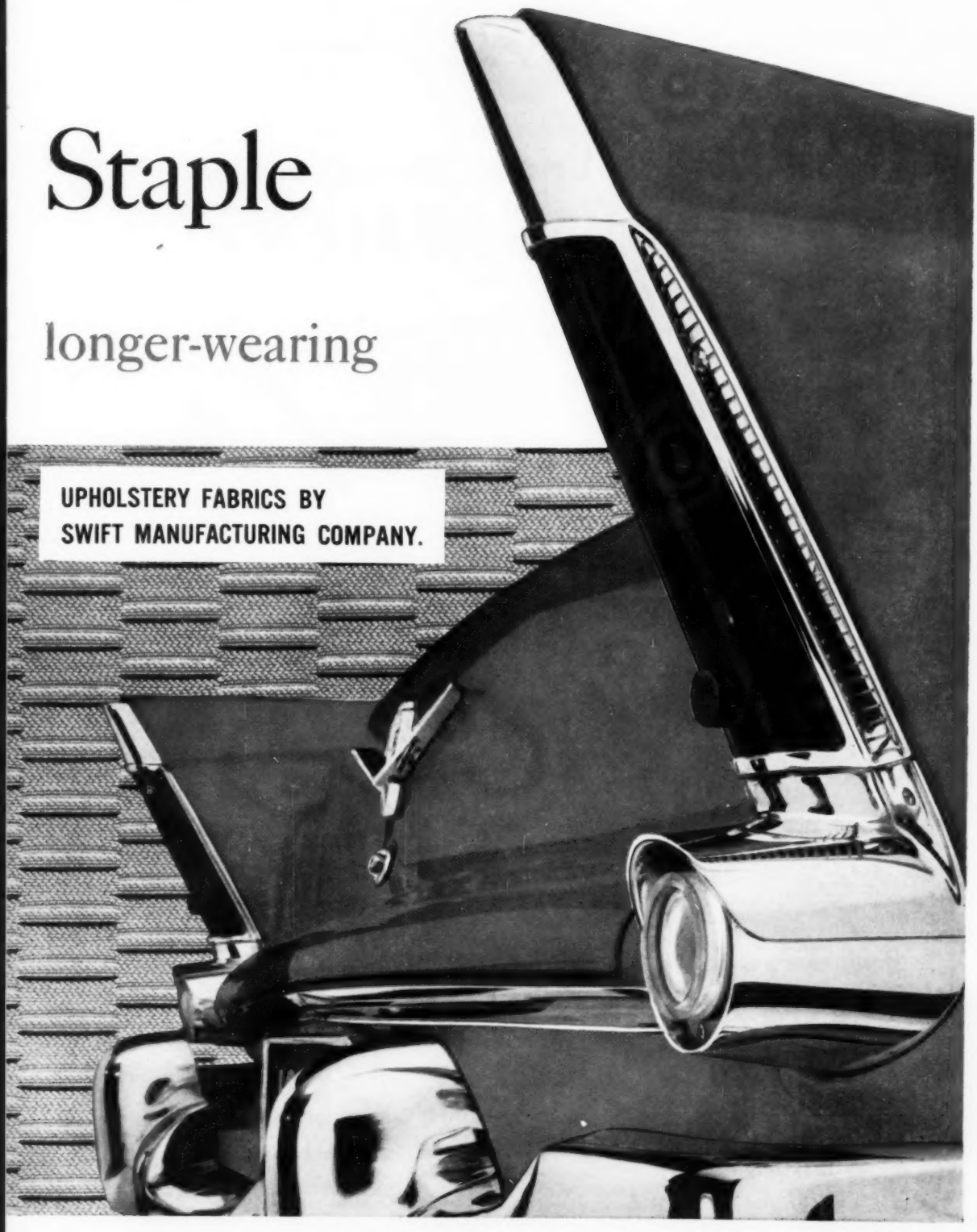
THE NEW Nylon Staple I·R·C

INDUSTRIAL RAYON CORPORATION

Sales Offices: 500 Fifth Avenue, New York 36, N.Y. • 627 Guilford Bldg., Greensboro, N. C.

Staple

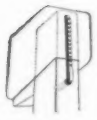
longer-wearing



JACOBS

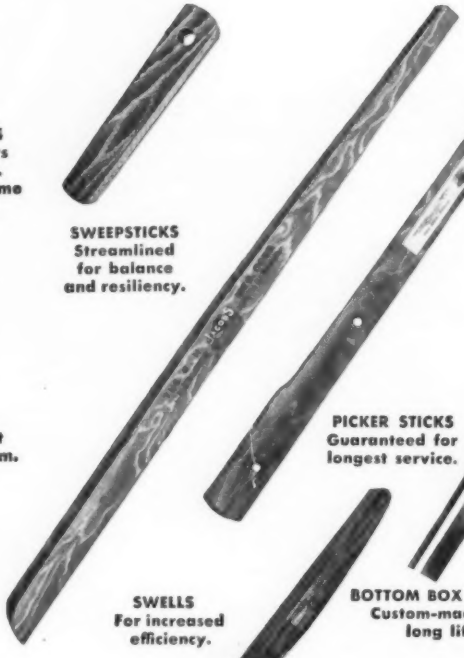
PLYWELD® Loom Necessities TAKE PUNISHMENT!

Outlast Hickory 15 to 1



SERRATED HOOKS
For Draper Pickers on Plyweld Sticks. Eliminate troublesome screws, easily adjusted.

SWEEPSTICKS
Streamlined for balance and resiliency.



POWER STICKS
Outlast fiber and wood many times.

HOLDUPS
Designed to meet any Holdup problem.

PICKER STICKS
Guaranteed for longest service.

CLOTH ROLL BLOCKS
Durable.

SWELLS
For increased efficiency.

BOTTOM BOX PLATES
Custom-made for long life.

RACE PLATES
Uniform throughout.

PLAN TO ATTEND *the Southern* TEXTILE EXPOSITION
GREENVILLE, S.C.
OCTOBER 1 to 5, 1956

Booth No. 448
Annex I

Only JACOBS makes PLYWELD®
U. S. Pat. No. 2,503,711

THE BULLARD CLARK COMPANY

JACOBS

SOUTHERN DIVISION
Charlotte, N. C.

NORTHERN DIVISION
Danielson, Conn.

NEW EQUIPMENT PARADE

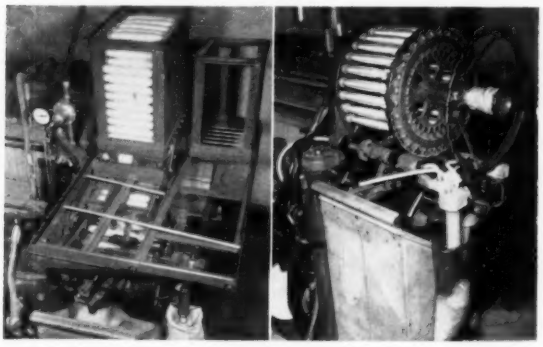
Machines and Equipment . . . Supplies and Services . . . Dyes and Chemicals . . . Books

Please note: Claims made in all of these announcements of new developments are of necessity based upon information furnished by the respective suppliers.—The Editors

Filling magazine saves labor, reduces seconds

Efforts to improve the efficiency, versatility, etc., of the Draper X-2 loom have resulted in the development of an automatic filling magazine, a pneumatic thread clearer, and a high roll take-up.

The automatic filling magazine completely eliminates the conventional rotary type of battery. Bobbins are automatically loaded into containers (or magazines) directly from the winders, then transferred to the loom and fed into the shuttle with no handling of individual bobbins by weave room personnel. Some of the advantages of this magazine include decreased labor costs and, as a result of cleaner yarns, a reduction in cloth seconds.



Automatic filling magazine (left) and pneumatic thread clearer.

The pneumatic thread clearer contributes to overall loom cleanliness and improves cloth quality by removing loose filling ends. It reduces drag-ins and other imperfections caused by filling waste being drawn into the weave. This mechanism may also be applied on looms having the conventional battery.

The high roll ratchet take-up makes possible weaving of a wider range of fabrics on the X-2 loom. The take-up has double take-up rolls (rubber covered) to provide the increased frictional surfaces needed to hold the cloth in weaving spun or filament rayon-type yarns. A separate wind-up, driven by chain and sprocket from the lower take-up roll, provides easy doffing. A pressure roll, acting against the lower take-up roll, holds the woven fabric securely and permits doffing the rolls of cloth without stopping the loom.

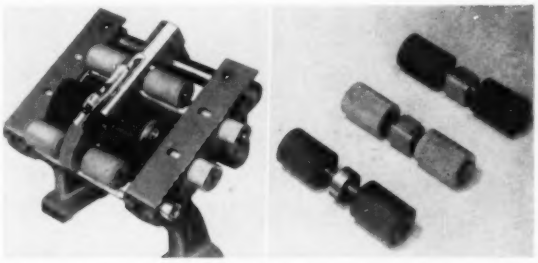
Draper Corp., Hopedale, Mass.

Do you want more data? Write ◆ or use card on page 273; list K-101

Spinning saddle guide eliminates cap bars

The Super Saddle Guide can be installed a few parts at a time to spread the investment, and eventually to eliminate all oil and all cap bars from the top rolls.

Front rolls and saddles may be used at first, thus eliminating the front cap bars and all oiling in connection with the front top rolls. At a later date the rest of the parts may be added. The saddle is available for Roth, Duo-Roth, and Casablanca type spinning.



The Super Saddle Guide by Dixon (left photo). Right, the top rolls are shown.

The anti-friction front roll is removable and is snapped securely to the front saddle, which in turn is pivotally mounted to the back saddle. Both front saddle and roll are free to align themselves automatically with the bottom roll. Misalignment is impossible with the ball and socket swivel mounting.

The back saddle and back roll construction is completely fool-proof and simple. The middle and back rolls are adjustably mounted to the back saddle by means of central bearing blocks. The rolls turn on Rulon bearings which never need lubricating. The back saddle is removably mounted on a bracket attached to the back bar rod. A new back bar rod, firmly held by the roll stands, gives the necessary support to hold the middle and back rolls in correct alignment.

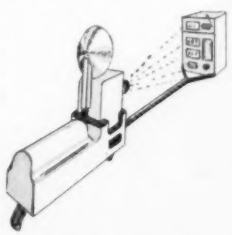
Dixon Corp., Bristol, R. I.

Do you want more data? Write ◆ or use card on page 273; list K-102

Read pick clocks faster, get photographic evidence

For speedy, accurate, and economical reading of pick clocks, hank clocks, and even to expedite taking of inventory from bale tags, roll tags, etc., the Nemo Camera System was developed.

By this method the person having the responsibility for reading the hank and pick clocks uses a handy, fixed-focus movie camera to make close-up photographs of the faces of the counting devices. Later the film is developed in a mill dark room. Then the roll of film is run through a projector, one frame at a time, to permit the operator to record the clock readings for use in payroll and production calculations. Finally, the film is stored and serves as a permanent



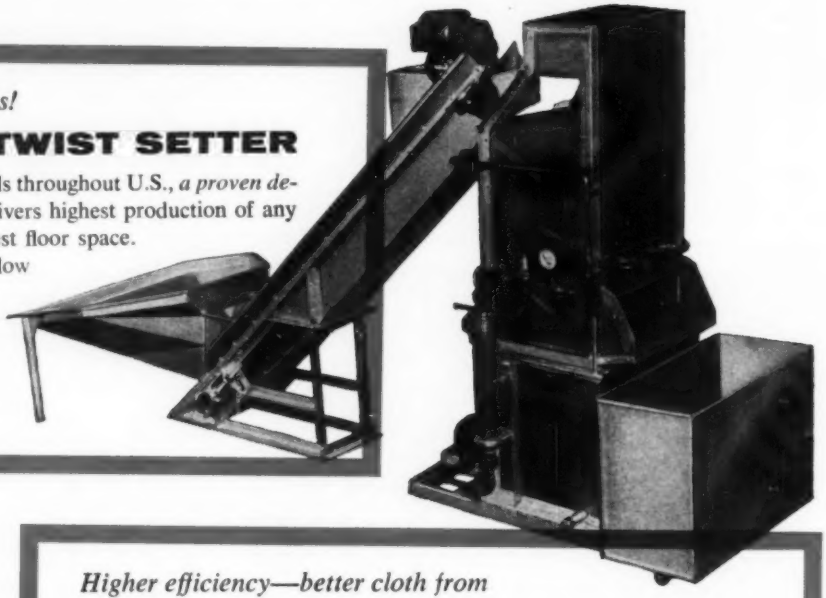
PROVED:

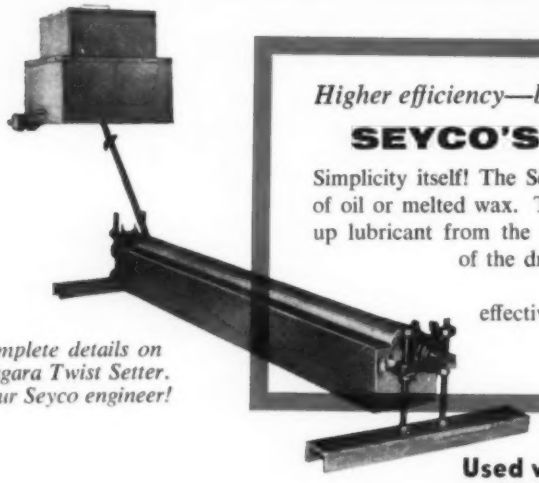
Higher production
More efficiency

Cuts conditioning costs!

NIAGARA TWIST SETTER

Installations in leading mills throughout U.S., *a proven design, no moving parts,* delivers highest production of any yarn conditioner in smallest floor space. Conditions yarn at a new low cost. Ten to twenty cents per thousand pounds of yarn. Low maintenance costs. Production up to 3,000 pounds per hour.





Higher efficiency—better cloth from

SEYCO'S WARP LUBRICATOR

Simplicity itself! The Seyco Warp lubricator roll turns in a trough of oil or melted wax. The warp sheet passes over the roll, picking up lubricant from the roll. The lubricant is then on the surface of the dried size film, which already contains all the softeners and plasticizers needed for an effective size. Warp lubricant goes where it is most needed . . . *on the outside of your yarn.*

Get complete details on the Niagara Twist Setter. Call your Seyco engineer!

Used with Seyco SYNCOTE S and other Seyco warp lubricants

BE SURE AND DROP BY BOOTH 238 AT THE GREENVILLE SHOW

Headquarters for textile chemicals

SEYDEL-WOOLLEY & CO.

748 Rice Street, Atlanta, Georgia

SEYCO

and indisputable record of the meter readings.

Especially designed equipment is offered, including a gun-type camera with pistol grip and a projector. The 8-mm movie camera is modified so that each pull of the trigger causes the camera to make just one picture (only one frame is exposed at a time). The proper amount of light to produce a good exposure is provided by a battery-operated flash unit which provides thousands of flashes without bulb change. The unit is synchronized with the camera so that it flashes as the shutter opens when the trigger is pulled. The camera, flash unit, and batteries are all housed in the single gun-type holder.

Other complementary equipment consists of: rewinds—suitable for putting up any desired length of film, and supplied with a special cover to prevent light damage and to facilitate storage; developing tanks—polyethylene tanks with air-tight covers in which developing and fixing solutions can be expected to retain their qualities for as long as 30 days; special reel for use with developing tanks; film splitter for preparing 8-mm width film from 16-mm film.

The basic photographic supplies, such as film, batteries, developing chemicals, etc., may be purchased locally.

Nemo Industries, Inc., 3133 Maple Dr., N. E., Atlanta 5, Ga.

Do you want more data? Write ◂ or use card on page 273; list K-103

Coiler has ball bearings in head and base

Among the improvements available in a line of coilers for cotton-type cards are a head and base assembly equipped with ball bearings. The head and base are mounted on a tubular stand which houses the coiler upright shaft. The stand permits easy rotation of the head and base assembly. A plate-covered port is provided in the tubular stand to allow access to the coiler drive gears. The can table is driven by a roller chain. The coilers are available in sizes to accommodate all standard heights and diameters of cans.

Southern States Equipment Corp., Hampton, Ga.

Do you want more data? Write ◂ or use card on page 273; list K-104

Tying-in machine selects lease from drop wires

Titan warp tying-in machines, Models CK-6A and CK-6B, will tie warps of cotton or rayon (spun) in a single "bite" up to 120" in width, and will select an end-and-end lease from the drop wires while tying to the unleased flat sheet from the new warp. Another unit, Model GK-6C, is for unleased warp tying only, either where light sley warps are involved or where heavy yarn counts are woven. The first two models above are universal in that both can be changed in a minute to tie leased-to-flat, leased-to-leased, or flat-to-flat warps.

The method of selecting the lease from the drop wires gives straight warps, eliminates crossed ends in the drop wires, and often can increase loom efficiency by 3% and decrease cloth seconds 25% or more due to fewer broken ends during weaving.

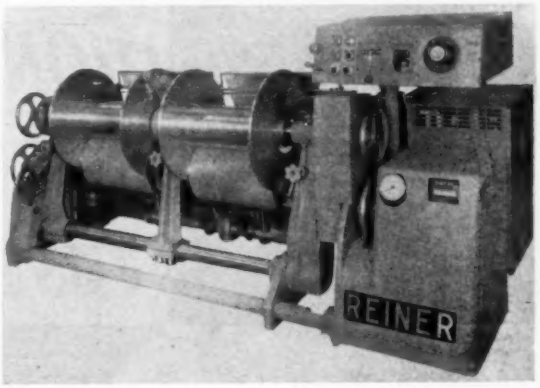
Edda International Corp., 468 Fourth Ave., New York 16, N. Y.

Do you want more data? Write ◂ or use card on page 273; list K-105

Tricot warper doffs automatically

A heavy-duty, tricot-type warper will run two 21" x 21" tricot beams simultaneously, or run a single 42" beam with a 21" head. It is also available in single 21", 42", or 84" widths for either 14" or 21" beam heads.

The machine doffs automatically by means of a gear-



reduced motor and slip clutch. It picks up beams from the floor, from a beam wagon, or from a dolly. A simple up-and-down switch brings them into running position.

Running speeds of approximately 100 ypm to 450 ypm are obtained through a rheostat. A tachometer generator maintains constant yarn speed with an accuracy of plus or minus one per cent. The machine can be run for short periods at a low speed when momentary yarn inspection is desired. It is adaptable for warp beam heads up to 32" in diameter.

Optional equipment includes a stop motion, static eliminator, yarn storage device, comb traverse, floor switch, and hand stop switch. A single control panel at the right of the machine houses the controls for the comb, predetermined shut-off counter, speed indicator, yardage counter, and indicating lights. For easy access the control relays are housed in the back of the control panel.

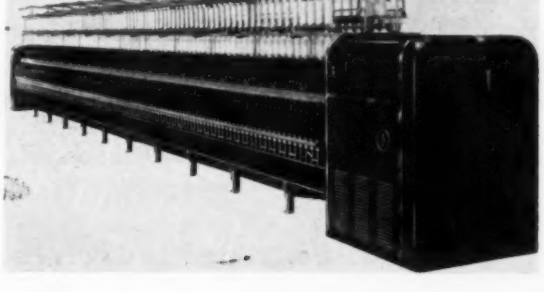
Robert Reiner, Inc., Weehawken, N. J.

Do you want more data? Write ◂ or use card on page 273; list K-106

All-count spinning frame easily repaired, cleaned

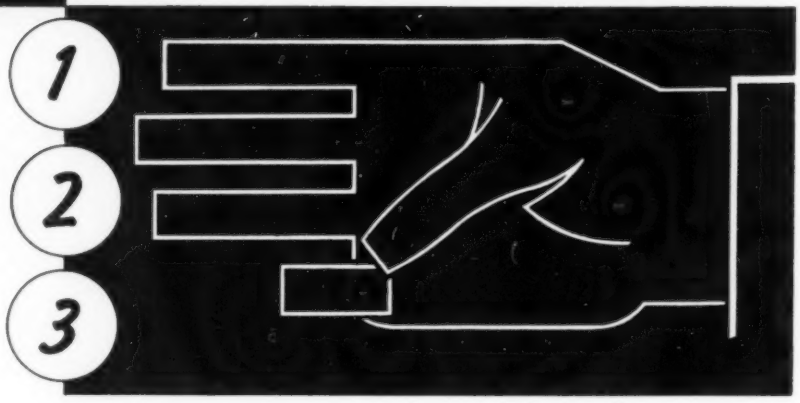
A new spinning frame, built by Platt Bros. (Sales) Ltd., Oldham, England, is now available to mills in the United States. Simply and efficiently designed to offer ease of operation, and clean and neat appearance, the M.R. 3 all-count spinning frame is offered with a number of ring sizes up to 3".

The rail lifting is effected through the use of cross



WHY Huyck's *New* PRECONDITIONED COMPRESSIVE SHRINKAGE BLANKETS LAST LONGER...

SIMPLE AS... 1 2 3



1 **Huyck carefully selects and blends only the** finest of **long staple fibers** — the **best obtainable** from the world over.

2 **Huyck reinforced yarns** — achieved through continuing development work and field studies — assure greater strength and firmness.

3 **Huyck improved manufacturing techniques** minimize wear and abrasion in final blanket finishing.

Aside from the big advantage of *longer service life* — Huyck's *new . . . preconditioned* Compressive Shrinkage Blankets also reduce break-in time . . . minimize costly reprocessing . . . assure smooth finish . . . hold to specified dimensions . . . and require fewer machine adjustments. Combine all these *plus features* and you'll see why so many mill operators say—Huyck offers the ideal "blanket policy," protecting against high shrinkage costs, wasted time and trouble.

F. C. HUYCK & SONS
Established 1870
FIRST IN QUALITY . . . FIRST IN SERVICE
Rensselaer, New York
Aliceville, Alabama

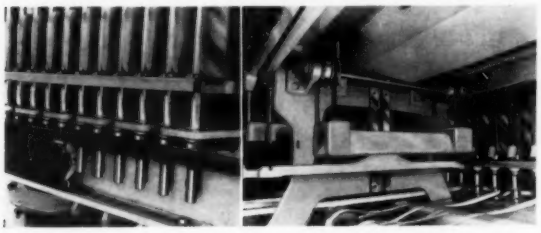
KENWOOD TEXTILE PRODUCTS

A Product of the Huyck Industrial Fabrics Development Program

shafts, a channel lifting rail, and rubber cored tapes as connectors. There is no lost motion such as is experienced with rocker arms; and rail lift is accomplished in a vertical line without side thrust.

The built-in motor is enclosed in the headstock and is adaptable to either V-belt or chain drive. The headstock encloses all gears, the building motion, and the driving motion. One-shot lubrication services all head stock bearings.

Many parts have been removed from the bottom of the frame. The spindle rail is completely enclosed to



exclude foreign matter. This is done in the interests of cleanliness and maintenance. The 10" cylinders can be dropped directly to the floor and removed under the spindle rail.

A great variety of drafting elements is offered. Among them are 3-roll, 4-roll, Casablanca, Balmes, etc. The roll banks are normally inclined at 45 degrees; a 35-degree bank is optional.

Pneumafil is optional, with the frame being integrally designed to receive it. Balloon control rings are provided and recommended for strokes in excess of 10". The ring rails are of pressed steel.

Tape drive is standard, although the frames may be equipped with the Hispano-Suiza drive — a direct gear drive for each spindle. The spindles are equipped with roller bearings. The rolls are screw-coupled, and the roll stand adjustment screws enable the stands to be set from the top of the frame.

Atkinson, Haserick & Co., P. O. Box 509, Framingham, Mass.

Do you want more data? Write ◂ or use card on page 273; list K-107

Convert latex acrylic thickeners at point of use

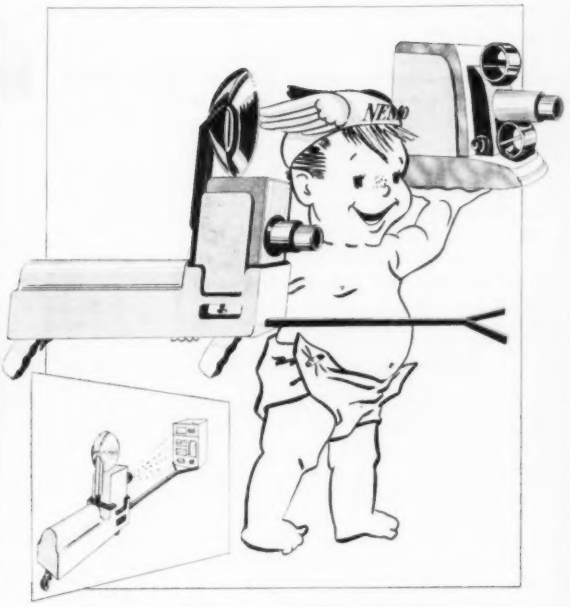
Two acrylic thickeners for use in textile backings, latices, etc., are shipped in water-thin solutions which can be thickened at the point of use.

One of the emulsions, Acrysol ASE-75, is supplied as a dispersion of 40% solids and low pH. It converts instantly to a clear, viscous solution upon dilution and the addition of a base.

Both emulsions offer improved lot-to-lot uniformity, reduce handling and storage problems, and eliminate making up solutions from hard-to-dissolve dry powders.

Films formed of ASE-75 bind pigments effectively and are highly resistant to change upon aging. These films may be redissolved in alkali or certain organic solvents. The flexibility of such films, being slightly hygroscopic, is a function of relative humidity; however, films made from this emulsion are less influenced by humidity than are films of standard water-soluble acrylic polymers.

A water-insoluble film can be formed by the addition of zinc-ammonium complex to the ammonium salt of this compound. Adding glycols, followed by baking at high temperatures, produces films which are nonblocking and insoluble. Efflorescence can easily be avoided where nec-



LITTLE NEMO INTRODUCES THE

NEMO CAMERA SYSTEM®

for split-second, film-recorded, accurate readings of—pick clocks and hank clocks, bale tags, roll tags, etc. (in the taking of inventory)

Eliminate costly errors that result from transposition of figures in recording clock readings, style numbers, yards or pounds when read by the eye—

THE NEMO CAMERA CAN'T LIE!!

The system incorporates the use of:

★ An especially modified movie camera, (a product of one of the country's leading camera manufacturers)

★ The proper type strobe-lite,

★ An especially designed holder for the camera and strobe, (for accuracy of readings)

★ An especially designed projector, (for effective and efficient reading when processing data).

and other complementary equipment, including inexpensive, rapid developing equipment, designed to meet the special needs.

See the NEMO CAMERA SYSTEM in operation at the Show, Section 320

NEMO INDUSTRIES, INC.

3133 MAPLE DRIVE, N. E. ATLANTA 5, GA.

PHONE EXCHANGE 1947

essary by the use of potassium or ammonium salt instead of the sodium salt.

Acrysol ASE-60 is an acid-containing, cross linked acrylic emulsion copolymer supplied as a milky liquid with a viscosity of 4.0 centipoises, and a solids content of 28%. Diluted with water to not more than 5% total solids, and neutralized instantaneously with any one of a variety of standard bases, it clarifies and becomes highly viscous. Frequently the water-thin, unneutralized emulsion may be incorporated into a latex, emulsion, or other suspension and then thickened "in situ."

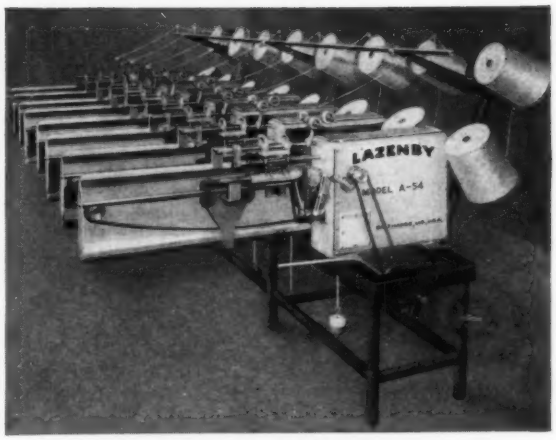
Rohm & Haas Co., Washington Sq., Philadelphia 5, Pa.

Do you want more data? Write ◂ or use card on page 273; list K-108

Automatic cop winder doesn't stop for doffing

High production and labor savings are secured with the Lazenby Model A-54 automatic cop winder by reason of its feature of no slowing-down or stopping of the winding spindle for doffing. This means that the new cop is being formed and started well on its way while the completed cop is being doffed, and the end cut and the tail stock returned to its normal winding position. At a spindle speed of 2200 rpm, winding 1⅜" diameter cops of 14-lb jute, each spindle has produced 98 lb in an 8-hr shift. Spindle speeds are practical up to 3000 rpm, depending on size and type of yarn.

Designed to wind filling yarn in such textile operations as cotton, jute, carpet, tapestry, upholstery, and asbestos mills (wire core yarns included), the winder will



give scores of combinations of packages.

Spindle changing is necessary in converting from one type of yarn to another, and this can be done in a minute or two. An entire changeover, spindle, trumpet, length, and diameter of cop can be effected in an interval of five minutes.

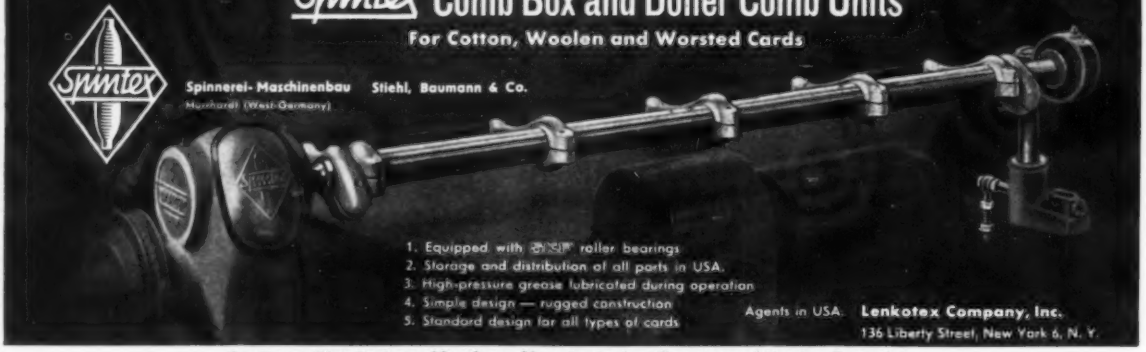
Cop diameters are changed on the winder by the simple adjustment of a screw in the arc of the traverse arm. The length is varied by the release and turn-set of a dial knob on a graduated scale.

The F. A. Lazenby Co., 3106 Elm St., Baltimore 11, Md.

Do you want more data? Write ◂ or use card on page 273; list K-109

Spintex Comb Box and Doffer Comb Units
For Cotton, Woolen and Worsted Cards

Spinnerei- Maschinenbau Stiehl, Baumann & Co.
Mühlhausen (West-Germany)



1. Equipped with SKF roller bearings
2. Storage and distribution of all parts in USA.
3. High-pressure grease lubricated during operation
4. Simple design — rugged construction
5. Standard design for all types of cards

Agents in USA. Lenkotex Company, Inc.
136 Liberty Street, New York 6, N. Y.

Southern Distributors: Meadows Manufacturing Company, Atlanta, Georgia.

KENTEX
TEXTILE APRONS

Precision-built, of genuine leather, they "Fit Better—Wear Longer." Write for free samples and prices.

TEXTILE APRON CO., East Point, Ga.

HUGH WILLIAMS & COMPANY, TORONTO, CANADA—CANADIAN REPRESENTATIVE

PINS and LAGS

Special pins and pin arrangements produced for processing wool, cotton, synthetics, jute, sisal, flax, mill waste and shoddy.

Volume production by precision methods permits attractive prices on all types. Prompt deliveries. W. H. Bagshaw Co., Inc. (Est. 1870) 42 Pine St., Nashua, N. H.

B Co. by BAGSHAW

This cotton opener was made to remove pepper trash

The Lummus "Pepper-Shaker" opener is designed to remove from cotton the fine pepper trash and to open the cotton so well that all following cleaners can do better work. [See photograph on page 163.]

Each of the cylinders has 160 pins which are quite short, to hold the cotton against the cleaning grids. The grids are smooth, round rods which cannot damage the stock, nor break up the trash. The beaters are set very close to each other, and this gives thorough opening of the cotton.

This machine is usually placed in the opening line following the blending feeder; it can also be used as the last machine in a cleaning line to take out very fine trash still remaining in the cotton.

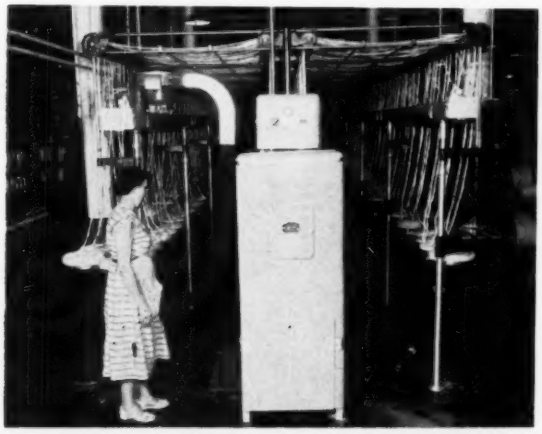
The Lummus steel blending feeder, which delivers the cotton in very small bits, is recommended for feeding the Pepper-Shaker.

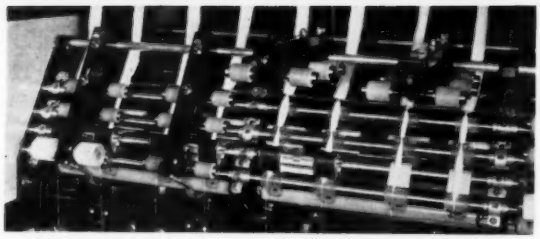
Aldrich Machine Works, Greenwood, S. C.

Do you want more data? Write ◆ or use card on page 273; list K-110

Stronger yarns made on new sliver-to-yarn frame

A new Saco-Lowell spinning frame, the Can Spin SG-3C, spins yarns from cotton or synthetic drawing sliver (not exceeding 1.5" staple). Built on the standard Gwalt-

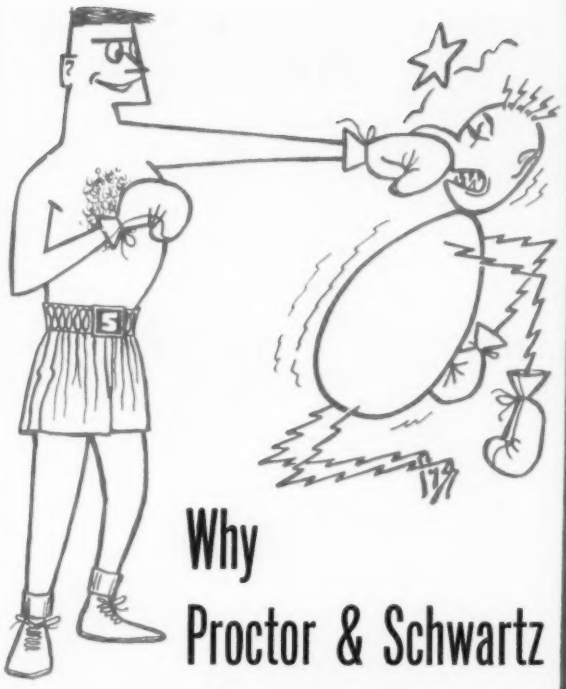




ney chassis, with 4½" gauge, 3½" rings, 11¼" traverse, and in either 216 or 240-spindle lengths, the frame produces a 1.25-lb package. Although not recommended to spin yarns finer than 12s, the frame will produce 16s from a 55- or 60-grain sliver. Drafts are from 38 to 101.3.

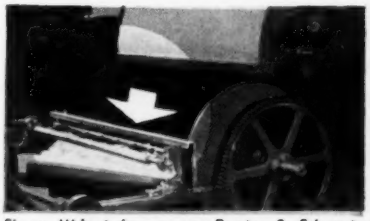
Yarns spun on the new frame show an increase generally of 15% to 20% in breaking strength over the same counts spun from the same stock on conventional frames. There is an improvement in variation as well.

Spindles are No. 6 New Era, rubber mounted, with cam brakes. The spindle can be adapted to carry either a paper



Why Proctor & Schwartz recommends the Simco "Midget"

FOR ELIMINATING STATIC



Simco Midget in use on Proctor & Schwartz Synthetic Card

Proctor & Schwartz, along with other respected machine manufacturers, recommends the SIMCO *"Midget"* static eliminator because it delivers the knock-out punch to static under all operating conditions . . . safely, inexpensively. Write today for information about Simco's complete line, including special channel bars for cards and garnetts, and shockless bars for inflammable applications.

the SIMCO company
920 Walnut Street, Lansdale, Pa.

No Axe to Grind
Moretex has no "axe to grind" for any specific formula, because Moretex makes all basic types of chemicals, with infinite variations — each compounded to meet your specific need. You'll get better results when you call on Moretex.
Try MOROPOL X-105 Softener for wash and wear cottons — freeze-thaw stable, prevents embrittlement and rancidity, miscible in water in all proportions.
MORETEX Chemical Products, INC.
ESTABLISHED 1908
MANUFACTURING CHEMISTS
SPARTANBURG, SOUTH CAROLINA

I'VE COME TO GREENVILLE
FROM THE Far East
Garland
Take a look at Garland
RAWHIDE PRODUCTS
in BOOTH 423 at the
SOUTHERN TEXTILE EXPOSITION
PICKERS • BUNTERS • ROD LUBRICANT
HAIR-ON LOOM LEATHERS • HAMMERS and MALLETS
Serving the Textile Industry for 90 years
GARLAND Manufacturing Co.
WATER STREET • SACO • MAINE

tube or a wooden bobbin. The roll stands are similar to those used in the standard Gwaltney frame, with an extra bearing for the fourth or back roll. The pressure system for the rolls is the same as that used on the Gwaltney, with the top rolls mounted in anti-friction bearings, and self-aligning to the corresponding bottom roll. The front top roll, the third, and back, are standard top rolls, with synthetic covering; the second roll is a Duo-Roth cage.

With all the supply cans placed on the floor, the frame requires a width of 135", including the 27½" working alley on each side of the frame. It is recommended that the cans be 14" or 15" in diameter and contain twin strands of sliver. These cans may all be placed on the floor, or half of them elevated to save floor space. The creel brings the sliver from the cans to the back roll without troublesome tangling, stretching, or breaking.

Saco-Lowell Shops, 60 Batterymarch St., Boston, Mass.

Do you want more data? Write ◂ or use card on page 273; list K-111

Fewer sock inspectors needed with this machine

The "Marvel-X," an automatic machine for inspecting all types of infants', children's, and men's hose, offers the following advantages:

100% quality inspection; automatic turning; accurate count; semi-automatic change for turret mounted forms;

convenient bagging or boxing; 50% reduction in inspection personnel; compact size for minimum floor space; trouble-free life; efficient operation on 110-volt a-c current.

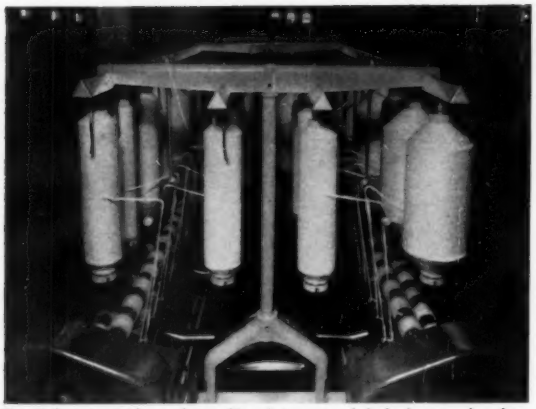
Marvel Specialty Co., P. O. Box 125, Paducah, Ky.

Do you want more data? Write ◂ or use card on page 273; list K-112

Steel spinning creel is stronger and cleaner

The Bahnson "Open-Aire" creel is constructed of heavy stamped steel to give maximum strength. Deep drawn steel crossarms are notched to give stronger lateral support and to conceal runner clips. A baked enamel finish in a choice of colors eliminates etching and corrosion, and minimizes lint collection.

Extruded aluminum runners are available in place of the steel. The crossarms are factory assembled for



The Bahnson steel creel is offered in several baked enamel colors.

simplified installation and to speed on-the-job erection.

The Bahnson Co., Reynolds Bldg., Winston-Salem, N. C.

Do you want more data? Write ◆ or use card on page 273; list K-113

Device cooks size instantaneously only as needed

The Nemo Jet Cooker for size preparation in slasher rooms and finishing plants offers the following advantages:

1. Saves labor by permitting the mixing of as large a volume of size as facilities will accommodate and maintaining this mixture for several days, over week-ends, or for any reasonable length of time;
2. Cooks instantaneously — no size is cooked until it is needed in the size box; no cooked size is stored, eliminating the need for large jacketed kettles;
3. Saves size and sizing materials — because the size is cooked instantaneously and only as needed, there is no waste due to souring in storage or working up too thin;
4. Can handle high percentage of solids — finishing plant mixes containing a high percentage of solids are handled without difficulty;
5. Saves power — constant stirring of heavy cooked size is not necessary; the cooker itself uses less power than an ordinary electric light bulb and little power is required for pumping;
6. Low maintenance cost — there is little to wear out.
7. Viscosity is almost constant.

Nemo Industries, Inc., 3133 Maple Dr., N. E., Atlanta 5, Ga.

Do you want more data? Write ◆ or use card on page 273; list K-114

Brush and shear range for cottons, synthetics

The Curtis & Marble M-125 shear and brush range for use on cottons, synthetics, and blended woven fabrics provide highest possible production with lowest possible operational cost without sacrifice of quality.

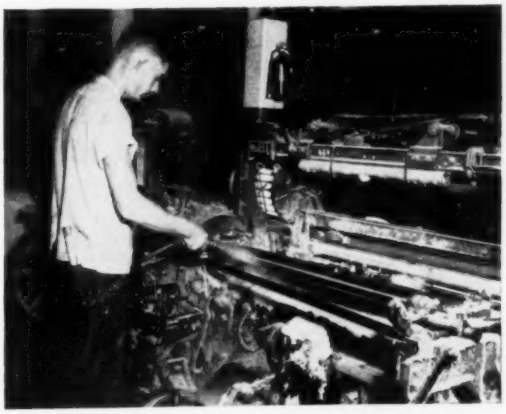
Shear engineering features include automatic seam and cloth protectors to give complete full-width cloth protection at all times. Revolvers are of the oscillating type and have individual built-in motors, quick-set rest adjustments, capillary oilers, and automatic instantaneous reversing of the rotation for seam passage. Draft rolls are synchronized, tension control is pneumatically operated, and special brushes pick up long threads. The

SECONDS

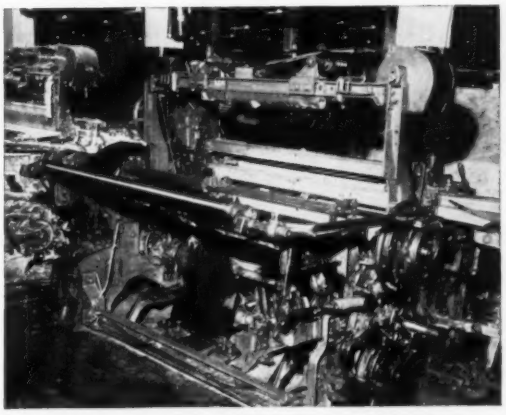
Caused by Lint and Oil

NO LONGER NECESSARY

New Help For Lint-Clogged Machinery



SPRAY ON LINTGO—BLOW DOWN LINT DROPS TO THE FLOOR



LEAVES MACHINERY CLEAN AND LINT-FREE. LINT DOESN'T SWIRL INTO THE AIR.

If you have lint-clogged looms; greasy, linty ring-rails and winder cams; drive cylinders that are so greasy your tapes slip constantly; or any one of countless other lint or grease problems, you will find LINTGO a life-saver!

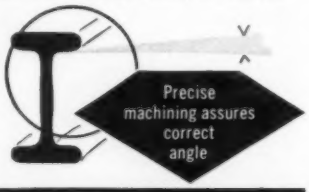
LINTGO reduces slubs, seconds, and improves quality. It is non-corrosive, odorless, non-flammable, fumeless, non-toxic and inhibits rust. It can and will solve your lint problems quickly, easily, economically and without hazard. Send for technical literature explaining properties, methods of application, etc., today using the handy, postage-paid return card on page 273.

Lester Laboratories, Inc.

P. O. BOX 4897 ATLANTA 2, GA.

Assuring smooth traveler "float"

1. Choose travelers of sufficient weight. A traveler that is too light tends to flutter against the ring flange rather than "float" around smoothly. 2. Choose DIAMOND FINISH rings, which are precisely machined to have the desired MINIMUM flange angle that helps the traveler float and improves the spin.

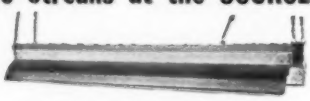


WHITINSVILLE (MASS.) SPINNING RING CO.
DIAMOND FINISH
Makers of Spinning and Twister Rings since 1873

Rep. for the Carolinas & Va.: W. K. SHIRLEY, 25 Oak St., Belmont, N. C.
Rep. for Ala., Ga., & Tenn: H. M. JACKSON, 216 Longview Dr., Jefferson, Ga.

Check potential dye streaks at the SOURCE

with the new IDENTA-LITE*

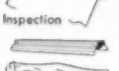

Special high-intensity reflector finish

3—48" ultra-violet lamps

Immaturity
Cat-eye Cotton
California Cotton
Fibre Contamination
Oil Spots

Cotton Fibre

Cloth Inspection


Hosiery Inspection

Excellent for dyestuff and chemical identification and adulteration

The powerful ultra-violet rays of the Identa-Lite instantly show up almost all of the potential causes of dye streaks . . . from the bale to cloth inspection. Various defects produce characteristic reactions under this light, thus making it easy to correct each at its source.

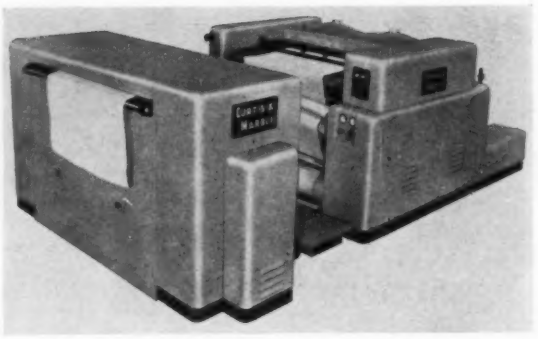
For Instance: Each oil used in opening, carding, spinning, weaving, and finishing can be typed and matched with oil spots on finished goods, thus making it possible to determine exactly where the spots originated.

Complete with base, tubes, reflector, starters, transformers, and hanging chains—ready for use on 110V AC line. Only $75.00 F.O.B., Charlotte.

Send us your order today. Satisfaction guaranteed.

*Trade Name

CHARLOTTE CHEMICAL LABORATORIES, INC.
MANUFACTURING CHEMISTS AND CONSULTANTS
Old Pineville Road — Charlotte, North Carolina



The Curtis & Marble M-125 shear and brush range.

rolling head is an adjustable batch-stop type pneumatically driven. Dual front and/or back controls are available. Power is supplied by a 5 hp a-c motor.

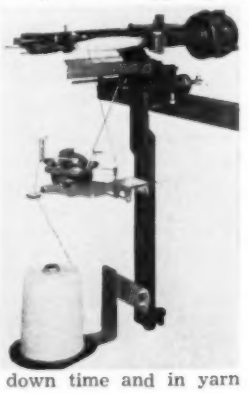
Up to eight interchangeable cylinders can be used in the brusher. Individual quick-set test adjustments are provided to permit almost instantaneous changes from light to heavy brushing, or vice versa. The abrasive rolls, card rolls, beaters, and brushes may be paired in any desired combination. The unit is equipped with a single stop-start control panel. The exhaust hood is concealed under the panel. A 5 hp a-c motor supplies the power.

Curtis & Marble Machine Co., 72 Cambridge St., Worcester 3, Mass.

Do you want more data? Write ◂ or use card on page 273; list K-115

Tension bracket keeps quills from jamming at winder

Designed for use with Abbott pin-board type quill winders, a bracket with double disk tension compensators makes possible zero tension at the doffing station, and by doing so eliminates jamming of the full quills. Also zero tension is applied during the first few wraps of the bunch to keep "missing" to a minimum.



Some of the advantages of the new brackets are fewer faulty quills, more uniformly controlled fabric width, closer yardage differences from quill to quill, and actual cost savings in reduced loom down time and in yarn waste.

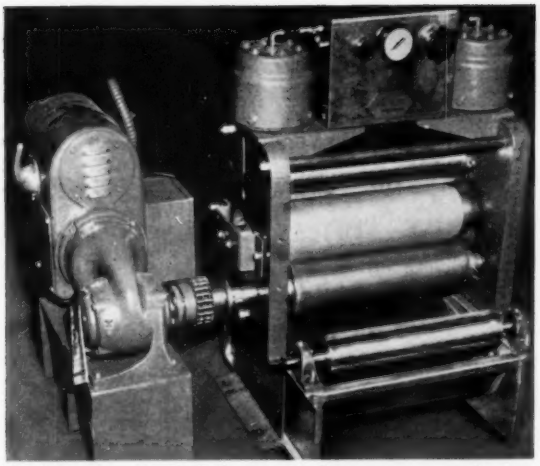
Kidde Mfg. Co., Inc., Bloomfield, N. J.

Do you want more data? Write ◂ or use card on page 273; list K-116

Laboratory size pneumatic mangle can be rented

A laboratory size model of the patented Niptrol pneumatic mangle is now available for rental to textile mills. Tests show that results on narrow width pieces run on the laboratory machine are comparable to wider goods run on the full size Niptrol mangle. A detailed analysis can be made of dyeing, extracting, and the application of a wide range of finishes. It is also possible to extract and apply finish in one operation with this small unit.

Working roll face is approximately 15". Roll arrange-



The laboratory size Niptrol gives results on narrow goods comparable to those given by the full size units on wide goods.

ment is very similar to that of the full-scale machine, except that the pressure roll is directly loaded by air cells. Due to compensating factors, the laboratory model has the same differential between primary and secondary nips as does the large machine.

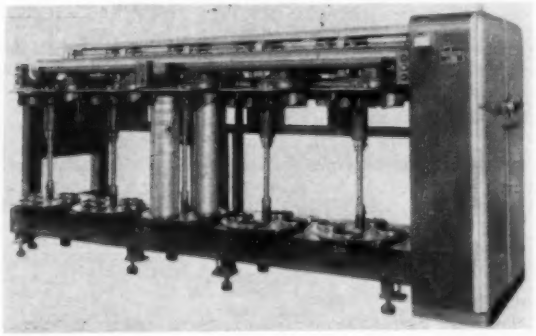
The laboratory unit can be supplied with either a Perlon roll or rubber dye roll which is quickly interchangeable. Standard laboratory Niptrol units come complete with variable speed drive unit, 110-volt single-phase service, and complete pneumatic control system requiring only connection to an air supply.

Rodney Hunt Machine Co., 65 Hill St., Orange, Mass.

Do you want more data? Write ◂ or use card on page 273; list K-117

Drawing frame features automatic can changing

A finisher drawing frame, made by O-M Spinning Machine Mfg. Co., of Osaka, Japan, is specially designed to supply the small aluminum cans of sliver for the creel of the OM-S high draft spinning frame. There is no pro-



duction loss for doffing because an automatic can changing mechanism is provided — instead of one large can to receive sliver from each delivery, there are four.

Each can table is mounted on a turret which is indexed to turn 90 degrees to bring a new can under the delivery when a pre-set yardage figure is reached. A knife edge under the coiler table cuts the sliver and throws the tail to the outside of the can. Thus, the cans

ELEVATED STEEL TANKS

• For more than a century, COLE elevated tanks have been helping provide fire protection and adequate water reserve for the textile industry.

Capacities from 5,000 to 2,000,000 gallons —and covering designs ranging from standard hemispherical self-supporting bottom to spherical tank on tubular tower. Send us your inquiry, stating capacity, height to bottom and location. Write for *Tank Talks.*

R. D. COLE MANUFACTURING CO. COLE NEWNAN, GEORGIA

Elevated Tanks, Pressure Vessels, Chemical and Processing Equipment from Aluminum, Stainless and Carbon Steel, Monel and Other Alloys.

Established 1854

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CHAPMAN
STATIC ELIMINATORS

FOR DRAWING FRAMES

MANY INSTALLATIONS HAVE ALSO BEEN MADE ON
CARDS
GARNETTS
WARPERS
CREELS
SLASHERS
NAPPERS
AND OTHER TYPES OF TEXTILE EQUIPMENT
Write us for details

IMPROVE QUALITY REDUCE WASTE
INCREASE PRODUCTION

SPECIALLY DESIGNED CHAPMAN STATIC ELIMINATORS CAN BE EASILY INSTALLED ON YOUR DRAWING FRAMES TO GIVE YOU PERMANENT, POSITIVE STATIC ELIMINATION ON WOOL AND WORSTED YARNS, AS WELL AS SYNTHETIC FIBERS AND BLENDS.

MANY YEARS OF TROUBLE-FREE SERVICE IS YOURS WITH A CHAPMAN STATIC ELIMINATOR, AND YOU WILL QUICKLY DISCOVER THAT OUR EQUIPMENT—

• STOPS STICKING IN COILER TUBES
• PREVENTS FLY • GIVES LESS BROKEN ENDS
• REDUCES LICKING • ELIMINATES BALLOONING

CHAPMAN STATIC ELIMINATORS
manufactured by
THE PORTLAND COMPANY 22 FORE ST., PORTLAND, MAINE

NOW IN WEAR-RESISTING
NYLON

TIGER-TUF
1 2 3

Shift-marker
SPINNING TAPES

AVAILABLE IN 3 WIDTHS: 1/2", 5/8", 3/4"

Industry-famous TIGER-TUF Shift-marker Spinning Tapes are now available in long wearing NYLON. These tapes provide the same controlled quality you get with Tiger-Tuf cotton tapes. Coleman supplies bonding strips and bonding machines for joining these new NYLON tapes. Write for details.

COLEMAN COMPANY, INC.
GREENVILLE, SOUTH CAROLINA

can be doffed two or three at a time at the convenience of the drawing tender.

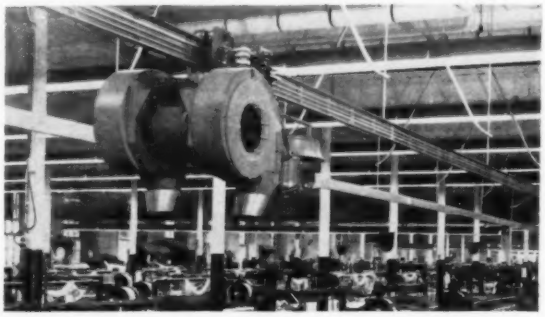
The frame is equipped with spring-loaded top rolls with mechanism for releasing all rods simultaneously.

Edward S. Rudnick, Room 507, Olympia Bldg., New Bedford, Mass.

Do you want more data? Write ◆ or use card on page 273; list K-118

How to cut weave room cleaning costs

The Heliclone loom cleaner, operating on a track suspended from the ceiling, keeps the ceiling and the



looms over which it travels free from accumulations of lint, dirt, and fly. Some of the advantages it offers are: lowered cleaning costs, fewer loom stops for broken ends, reduction in fire hazards, fewer loose filling bunches, kinks, broken picks, pull-ins, draw backs, and overshots.

Rapidly whirling outlet nozzles, driven by the air stream, direct the air jets always at an acute angle in a series of overlapping circular patterns at the loom and cloth surfaces. This action produces a rapid series of bursts of cleaning action each time the cleaner passes over the looms on a timed cycle. No posts or attachments to the loom frames are needed to support the track.

American Moistening Co., 260 West Exchange St., Providence, R. I.

Do you want more data? Write ◆ or use card on page 273; list K-119

Size box provides controlled pickup

Automatic positioning of the main squeeze roll of the new "Size Master" size box assures controlled size pickup. Also, controlled penetration is provided by the dry nip and padder roll. [See photo on p. 147.]

The position of the main squeeze roll is automatically changed for various speeds of operation by a gearmotor which actuates the positioning mechanism. This mechanism rotates the squeeze roll about the axis of the master (quetsch) roll. This rotation automatically regulates the roll pressure appropriately and at a predetermined rate. Air pressure on the roll is regulated in direct proportion to the position of the roll.

The box is of 20-gallon capacity to assure frequent change of size, and steam jacketed squeeze rolls prevent lap-ups caused by caked size.

The unit may be adjusted to give the same size pickup at any speed, and results have been verified in tests ranging from 90 ypm to 3 ypm. Speeds as high as 105 ypm have been successfully achieved without difficulty on 30s single carded cotton yarn.

Cocker Machine & Foundry Co., Gastonia, N. C.

Do you want more data? Write ◆ or use card on page 273; list K-120

Spinning spindle has brakes cast into split base

Economy of investment and maintenance, added to the time-saving features of a positive brake, are offered by a new spinning spindle made with a split base. Into this base is cast the bracket supporting the brakes. Made of sturdy design, the generous proportions of the base allow a wide contact surface on the brake shoe to provide for longer wear at that point. The cam action is positive, simple, and reliable. A touch on the brake lever locks the brakes and leaves the operative's hands free for piecing up, etc. The cam action also will lock the shoe away from the spindle, out of action until needed. The spindle turns on two ball bearings which are pre-lubricated. Normally the bearings will run for five years before further lubrication is needed.

Hartford Machine Screw Co., Hartford 2, Conn.

Do you want more data? Write ◂ or use card on page 273; list K-121

Read this thermometer accurately from any angle

An anti-parallax dial type thermometer, for use on dryers, washers, bleaching kiers, dye machines, etc., can be read instantly and accurately from odd angles. It can be fitted in any existing separable socket used to hold an industrial glass thermometer. The unit is weatherproof and has an accuracy within 1% of the thermometer range.

The bi-metal helix in the stem coils or uncoils with changes in temperature and turns a shaft on which a pointer is fixed. The reading is direct, requiring no multiplication of the movement.

The small diameter stem, with its low mass temperature element, makes the instrument responsive to process temperature changes. Silicone dampening of the element reduces the destructive effects of vibration and also acts as a heat transfer medium which further accelerates the responsiveness of the thermometer.

Manning, Maxwell & Moore, Inc., Stratford, Conn.

Do you want more data? Write ◂ or use card on page 273; list K-122

Large-package paper twister with "wet-twist" unit

A frame for twisting paper has been developed from the chassis of the Saco-Lowell Model 4 high-duty unit. Package weight of 4 lb is obtained with a Dwight or straight wind. The creel holds rolls of paper up to 20" in diameter (average paper width is .2362" to .2756"), generally of "kraft" composition. A wet twisting unit is installed above the roller beam to supply penetrants, dyes, wetting agents, or other softeners. The frame has an 8½" gauge, a 10" lift, and a 6½" x 1" deep ring.

Depending upon choice, the spindles are New Era No. 2 twister spindles or No. 5 ball bearing spindles. Knee brakes are provided on the spindles, which carry the 4-lb packages up to 4000 rpm. The 10" cylinder is mounted on anti-friction bearings.

Saco-Lowell Shops, 60 Batterymarch St., Boston, Mass.

Do you want more data? Write ◂ or use card on page 273; list K-123

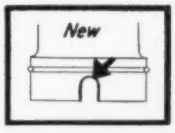
...BUT A SERVICE RECORD WAS BROKEN TOO!

This ABC HAIRON CHECK STRAP gave 9,893 Loom Hours of service on a 32" wide X Model loom running 196 picks per minute.* It's no wonder they're the finest you can buy!

**Name of mill furnished on request.*

ATLANTA BELTING COMPANY
508-510 Whitehall St., S. W., Atlanta, Georgia

MONTICELLO BOBBINS
"Engineered for Service"



Newly designed Milling Machine cuts rounded top Dog Slots which have replaced all sawed Dog Slots on Monticello Card Room Bobbins. This milling cut results in a stronger Bobbin where most splits begin.

MONTICELLO BOBBIN COMPANY
MONTICELLO, GEORGIA

INCREASE PROFITS BY KEEPING STATIC DOWN with . . .

Herbert OXY COLD BARS

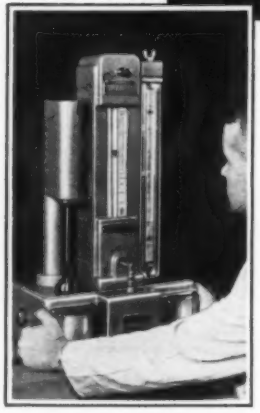
Static is a time-waster that eats up profits. You can stop this leak and increase the efficiency of your plant, quickly, *permanently* and at *low cost!*

All you need are *Herbert Oxy Cold Bars* installed on your machines. They provide safe, constant relief from the slow-downs and production delays caused by Static.

Thousands of satisfied users attest to the efficiency of OXY COLD BARS. *You will too!* Just send us your machine specifications. We'll send you a complete diagnosis and proposal, without obligation.

HPI HERBERT PRODUCTS INC.
74-24 JAMAICA AVE. • WOODHAVEN 21, N. Y.

NEW The Automated MICRONAIRE



- Speeds up checking two to three times
- Prevents operator fatigue
- Less chance for inaccurate reading
- Safe—both hands operate valves simultaneously
- Micronaires now in use can be automated
- New automated models now available

For NEW Book "Advantages and World-Wide use of the Micronaire in all segments of the Cotton and Textile Industries"

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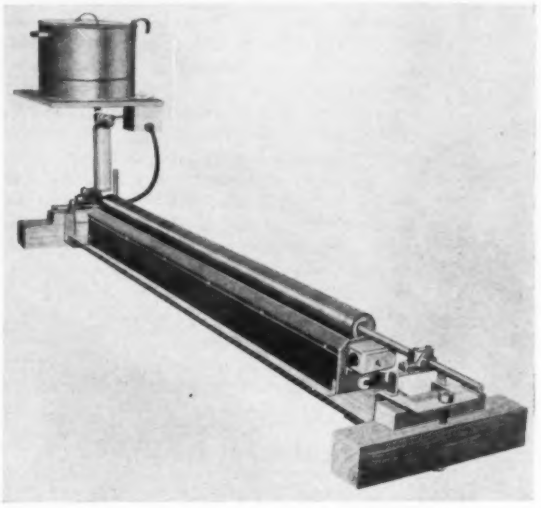
DAYTON 1, OHIO, U.S.A. 7515

GOLDEN ANNIVERSARY HEADQUARTERS

SHEFFIELD
manufacture and measurement for mankind

Uniform heat control feature of warp lubricator

An improved version of the Seyco warp lubricator for sizing machines features trough sides sloped to prevent



accumulation of fly that could fall into the trough. There is an extremely small clearance between the roll and trough.

Complete insulation aids uniform heat control and protects the operator from burns. The split pillow block bearings, screwed down only finger tight, allow quick and easy removal of the roll for cleaning the trough. A graduated scale permits accurate determination of the amount of wax applied. A heated supply line with protective guard assures no clogging from congealed wax. Designed for simplicity, efficiency, and accessibility, the electrically heated unit is easily installed.

Seydell-Woolley & Co., 748 Rice St. N. W., Atlanta, Ga.

Do you want more data? Write ◂ or use card on page 273; list K-124

Equipment Briefs

Roof ventilator fan with automatic dampers. An industrial roof ventilator, the Jet Axial, is equipped with butterfly dampers that open automatically during fan operation, but weather-seal the ventilator when not in use. During fan operation, exhaust air is dissipated with sufficient velocity to exclude rain or snow and prevent exhaust re-entry. Eight sizes are available with blade diameters from 24 to 60 inches. The units are engineered to give maximum exhaust with minimum power input.

Detroit Blower Co., 9867 Pacific Ave., Franklin Park, Ill.

Do you want more data? Write ◂ or use card on page 273; list K-125

Grease Stays Put under Bad Conditions. Sun C-891T Grease (calcium base) is compounded to stay put under the worst operating conditions. It is especially suited for the lubrication of bearings and parts in "hard-to-get-at places; gears, chains or slides in dirty or dusty surroundings; loose-fitting or worn bearings which would consume large quantities of an ordinary grease; bearings of rela-

tively low surface speeds, or which are subject to high unit pressures; and equipment which has parts that operate reciprocally or intermittently. The grease effects savings in the reduced amount of grease thrown off or lost in dripping, in the reduced cleaning necessary, and the reduction in machinery wear and rust.

Sun Oil Co., Philadelphia 3, Pa.

Do you want more data? Write or use card on page 273; list K-126

Heavy nylon monofilament yarns produced to textile standards. Heavy denier nylon monofilament yarn of textile standards are packaged on aluminum spools carrying approximately 1.7 lb each. Deniers available are 100, 200, 380, 450, and 600, in semi-dull luster. The 100- and 200-denier yarns are available in bright luster. Greater stiffness of these yarns is particularly useful in such apparel applications as bouffant skirts. Additional applications include specialized filtration media and chafer fabrics for tires. In development are mesh shoe fabrics, upholstery fabrics, and garment interliners.

Textile Fibers Dept., E. I. du Pont de Nemours & Co., Inc., Wilmington 98, Del.

Do you want more data? Write or use card on page 273; list K-127

Constant pressure rotary lubricator. Automatic lubricators featuring a newly designed constant pressure rotary pump provide fully automatic and continuous lubrication at a very low flow rate for machines with precision ways, testing machinery, and other mechanisms where oil film thickness variations affect operating precision. They are also used for medium speed anti-friction bearings when mist or spray is not needed.

Bijur Lubricating Corp., 151 W. Passaic St., Rochelle Park, N. J.

Do you want more data? Write or use card on page 273; list K-128

Fatty alcohol with textile applications. Adol-32, a liquid fatty alcohol with excellent color stability and high chemical reactivity, is a straight-chain, unsaturated, monohydric alcohol and is essentially oleyl. At room temperature the alcohol is an almost water-white, oily liquid with a mild fatty odor. It is non-corrosive, soluble in a wide variety of solvents, and miscible with fats, fatty acids, petroleum oils, and waxes.

Archer-Daniels-Midland Co., Chemical Products Div., Cleveland 2, Ohio.

Do you want more data? Write or use card on page 273; list K-129

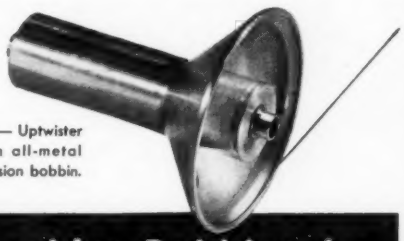
Explosion-proof electric hand lamp. An explosion-proof electric hand lantern (Model 287EX), approved by Underwriters Laboratory for Class 1, Group D hazardous locations, has a spark-proof case and spring bulb ejection. When the bulb cracks or breaks, the spring crushes the bulb and simultaneously ejects the bulb-base from the contact socket. The unit holds two standard 6-volt lantern batteries and operates on one or both.

U-C Lite Mfg. Co., 1050 West Hubbard St., Chicago 22, Ill.

Do you want more data? Write or use card on page 273; list K-130

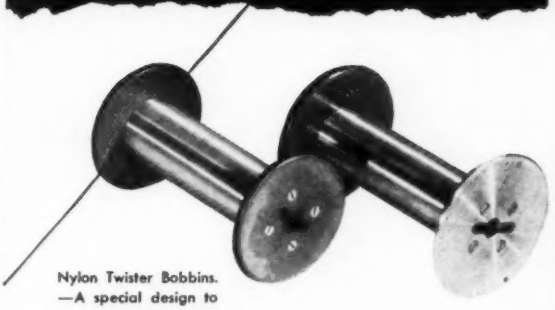
Quiet roof ventilators of low silhouette. Silent-Vent, an industrial roof ventilator, uses hollow, die-formed airfoil fan blades to improve exhaust efficiency and still allow lowest possible wheel tip speeds. Exhaust air leaving the axial wheel spins upward where it is caught by special guide vanes, which are an integral part of the head and spun out into the atmosphere. This process, combined with the low wheel tip speed, reduces noise level and turbulence to a minimum. Of low silhouette, the over-all height of the mushroom-shaped ventilator

first choice of economy-wise mill men



King Spool — Uptwister Bobbins. An all-metal special precision bobbin.

Lestershire Bobbins by NATIONAL



Nylon Twister Bobbins. —A special design to withstand the high pressures of nylon.

Probably you are now—or soon will be—buying new high speed bobbins. Whether you are concerned with larger "packages," higher rotating speeds, or newly developed synthetic yarns—Lestershire Bobbins by National are worth your study, for these reasons:

First, because quality and price are proper—but not excessive—for a particular application. By buying just the precision you need, you can make important long-range savings.

Second, you will find Lestershire representatives *helpfully inquisitive* about your processes. They're as willing to learn about your specific problems as they are to supply you with valuable field and laboratory experience. Too, they take special pride in seeing that you receive prompt delivery and continued service from nearby supply houses.

Get in touch with your nearest National Office or representative, or write us at Wilmington. Southern Bobbin Representatives: Odell Mill Supply Co., Greensboro, N. C.; Greenville Textile Supply Co., Greenville, S. C.

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ALSO MANUFACTURERS OF NATIONAL VULCANIZED FIBRE, PHENOLITE LAMINATED PLASTIC, PEERLESS INSULATION, VUL-COT WASTEBASKETS
NEW DIMENSIONS IN DESIGN AND SERVICE TO THE TEXTILE INDUSTRY

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IDENTIFICATION
BANDS
for your
ROVING CANS
BANDS OF UNITED ELASTIC WEBBING FEATURE

- long wear and service
- very attractive prices
- well-made, firmly-woven construction
- securely-sewed joinings
- bright, solid, non-fading colors
- fast-to-light, non-fading dyes
- easily recognized at a distance
- easily removed and transferred

If you will specify the can diameter; and the color, width and quantity of bands desired; we will submit samples and quote prices.

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DRONSFIELDS' PATENT
ATLAS BRAND
EMERY FILLET

STOCKED BY
THE PRINCIPAL MILL SUPPLY HOUSES
AND CARD MAKERS

does not exceed 18". Fan blade diameters range from 9" to 48". The totally enclosed motors are mounted on rubber vibration isolators. Capacities range from 350 to 34,430 cfm.

Detroit Blower Co., 9867 Pacific Ave., Franklin Park, Ill.

Do you want more data? Write ◆ or use card on page 273; list K-131

Pocket microscope. An instrument which combines a 50-power microscope and a 10-power telescope, is equipped with a metal reflector for lighting the subject under study. It is tilted into focus. Remove the metal reflector, draw out the eyepiece tube, and it becomes a 10-power telescope. Approximating a fountain pen in size, the instrument is equipped with a pocket clip.

Edmund Scientific Corp., Barrington 13, N. J.

Do you want more data? Write ◆ or use card on page 273; list K-132

Another metallic yarn source. Three basic types of metallic yarns — metallized Mylar, foil laminated Mylar, and foil laminated acetate butyrate — are now being produced and marketed by the Shellmar-Betner Division of Continental Can Co. All three types are non-tarnishing, fast to light, and brilliant. The Mylar laminations, especially metallized Mylar, have added softness, more brilliance, higher strength, and greater resistance to extreme conditions of wear, washing, and finishing.

Shellmar-Betner Div., Continental Can Co., 100 E. 42nd St., New York 17, N. Y.

Do you want more data? Write ◆ or use card on page 273; list K-133

Neoprene-coated nylon. Seamless vat covers, machinery covers, truck covers, and partitioning curtains may be fabricated from neoprene-coated nylon fabric now available in 138" and 144" widths. Use of this material reduces fabrication cost and eliminates any possibility of leakage or seepage. Color of one side is black and the other aluminum. The black side is for exposure to the sun since it absorbs ultra-violet rays. With the aluminum side underneath, it is easier to see under the cover.

C. R. Daniels, Inc., Daniels, Md.

Do you want more data? Write ◆ or use card on page 273; list K-134

A high temperature insulation blanket of Fiberfrax ceramic fiber, a material that resists temperatures as high as 2,300 F, has been introduced. Made of extremely fine, closely intertwining aluminum silicate fibers, the blanket keeps its form and properties despite elevated temperatures. May be used on high pressure steam lines, diesel exhausts, gas turbines, and furnace ducts. Available in 25' rolls 12" in width and at a thickness of ½".

The Carborundum Co., Niagara Falls, N. Y.

Do you want more data? Write ◆ or use card on page 273; list K-135

Plastic exhaust hoods resist corrosion. Available in many sizes and shapes are plastic laboratory fume hoods which resist the corrosion of a wide variety of acids (including even hydrofluoric in some materials), salts, alkalies, alcohols, esters, ethers, and hydrocarbons.

Haveg Industries, Inc., 900 Greenbank Rd., Wilmington, Del.

Do you want more data? Write ◆ or use card on page 273; list K-136

Geor remover uses infrared heat. A light, portable, U-shaped gear remover utilizes infrared rays to expand and loosen the parts to be moved. Five heating elements are positioned so that the unit can be placed to enclose three sides of the part to be heated. Two of the units can be used to enclose completely items such as gears, couplings, bearing races, etc., and thus reduce the time re-

quired for heating. Available in 115-volt and 230-volt capacities, the heaters can be supplied with either 5" or 50" lengths in heated elements.

The Miskella Infra-Red Co., East 73rd and Grand Ave., Cleveland 4, Ohio.

Do you want more data? Write ◂ or use card on page 273; list K-137

Hand modifying resin adds durability to fabrics. Monabond, a hand modifying resin, added to present resin formulations, results in a reduction of residual shrinkage and improved flat abrasion resistance, enhances the durability of the resin finish to washing or dry cleaning, and gives added bulk, weight, and fullness to the finished fabric.

Mona Industries, Inc., Paterson 4, N. J.

Do you want more data? Write ◂ or use card on page 273; list K-138

Insert tables speed sewing line changes. Tables constructed with standard insert openings into which any sewing machine head (on a uniform insert) may be mounted, are produced in natural wood finishes or in rigid plastic finishes. When machine substitution is necessary, removal of the mounted sewing head and replacement by another machine is easily accomplished. The major advantage gained by use of insert tables is the elimination of costly delays when machine changes are required due to varied production operations or machine maintenance.

Singer Sewing Machine Co., 149 Broadway, New York 6, N. Y.

Do you want more data? Write ◂ or use card on page 273; list K-139

Air handling combination units. For general use in ventilating, heating, and air conditioning, a line of combination air handling units contains 13 basic sizes capable of handling 500 to 48,500 cfm. The complete line features standard blast and steam distributing coils, direct expansion and water heating and cooling coils. Designed for minimum space requirements, all the unit components are easily accessible, facilitating inspection, lubrication, and filter changing. Only a single outlet duct for installation is necessary.

Westinghouse Electric Corp., Sturtevant Div., Dept., 151, Hyde Park 36, N. Y.

Do you want more data? Write ◂ or use card on page 273; list K-140

Exact pressure control with maximum air flow. A 2" air pressure pilot-controlled regulator, Model 20AA-16, reduces line pressure of up to 400 psi to working pressures of from 2 to 125 psi (temperature range is from —40 F to 200 F). Construction minimizes the effect of a fluctuating primary pressure. Constant control pressure maintained by the pilot regulator makes possible a greater valve opening than is obtainable with a comparable size spring controlled regulator. Remotely controlled, it can be installed at any point in the air system regardless of accessibility. The pilot regulator can then be installed in a convenient location for easy adjustment of working pressures.

C. A. Norgren Co., 3400 South Elati St., Englewood, Colorado.

Do you want more data? Write ◂ or use card on page 273; list K-141

Tape dispenser ejects lengths automatically. Particularly useful in the application of longer lengths of tape, the Model AFET-822 automatic tape dispenser requires no triggers, foot pedals, etc., to eject the tape. Air operated, the dispenser will handle filament, glass fiber, cloth, heavy paper, plastic film, cellulose, and acetate fiber tapes in widths up to 4" and in ejected lengths up to 21". A microswitch automatically sets in motion the next delivery cycle each time the operator removes a

INTER-PLANT SHIPPING

Been looking into the economy of canvas hampers? You owe it to yourself to give some consideration to

UTILITY Style 67 has proven extremely versatile throughout the whole inter-plant shipping operation, handling everything from raw goods to finished product.

CONVENIENCE Furnished with hinged wooden top and locking hasps, it nests when empty or supports other hampers when loaded for space-saving both in transit and in storage.

ECONOMY Its completely smooth interior prevents snagging or chafing of delicate fabrics or yarns. Style 67 is light weight; cuts shipping costs—makes hauling easier. Made from the finest leather-reinforced duck over special spring steel frame, plus the manufacturing know-how of Lane's sixty years of experience. It has an outstanding record of service and durability. Style 67 guarantees your best buy.

Style 67 is available in 6 standard sizes
From 28" long, 20" wide, 16" deep
To 40" long, 28" wide, 30" deep
INSIST upon Lane
and you insist upon the finest

Canvas Basket Craftsmen Since 1894

Lane

W. T. Lane & Bros., Inc., Poughkeepsie, New York

piece of tape from the dispenser. Thus the operator does not have to wait for the tape to be dispensed. Other models of controls available: foot valve — air mechanical, air time delay, and electric time delay.

Air Fixtures Inc., 202 West Main St., North Manchester, Ind.

Do you want more data? Write ◆ or use card on page 273; list K-142

Conveyor chain has nylon wheels. A chain for materials handling systems has nylon wheels and stainless steel bearings. The nylon wheels need no lubrication; the stainless steel bearings resist corrosion. An added feature is the quiet with which the nylon wheels roll on steel tracks. When enclosed, they are up to 80% less noisy than are steel wheels on steel tracks. The combination is particularly useful in corrosive atmospheres or in high humidity.

Richards-Wilcox Mfg. Co., Aurora, Ill.

Do you want more data? Write ◆ or use card on page 273; list K-143

Monitor names the gas or liquid flowing in pipe. What kind of a gas, fluid, or material is flowing through a pipe line is determined electronically without drawing off a sample by an instrument called the Electronic Indexometer. The instrument measures the index of refraction and indicates it on a wide scale meter at the point of operation; and at a distance of several miles if necessary. It operates under any conditions of pressure or temperature and does not interfere with or contaminate the process it monitors.

Industrial Gauges, West Englewood, N. J.

Do you want more data? Write ◆ or use card on page 273; list K-144

Liquid level gauges flash red at alarm points. When the liquid level of boiler water, etc., is safe, the Truscale remote reading liquid level gauge is illuminated with two 15-watt bulbs, one at either end. When the alarm points are reached, the whole scale is brightly lit in red by a large bulb in the center which flashes continuously until the dangerous condition is corrected. The convex face of the gauge brings the liquid level where it can be seen (face has 180 degree visibility); remote readings are accurate to ½ of 1% of the scale reading. They may be equipped with signal horns, lights, and up to six repeaters, so they can speak up and signal the whole operating floor as well as officials at other remote points.

Jerguson Gage & Valve Co., 80 Fellsway, Somerville 45, Mass.

Do you want more data? Write ◆ or use card on page 273; list K-145

New Books

A directory of nonprofit organizations, the *Encyclopedia of American Associations*, is a reference tool for businessmen, research workers, etc. The associations listed in the book are arranged in six sections: (1) Trade, Business, Agricultural, and Governmental Organizations; (2) Scientific and Engineering Organizations; (3) Educational and Social Welfare Organizations; (4) Health and Medical Organizations; (5) General Organizations; (6) Chambers of Commerce; and (7) Finding Guide. The finding guide provides a comprehensive index to every association listed in the directory. Available from Gale Research Co., 424 Book Tower, Detroit, Mich. Price: $15.00.

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The Development of Markets for New Products deals with experiences in the specific marketing problems of introducing and building demand for new products. The study is based on the experiences of major producers of aluminum, fibrous glass, and the plastics. In three parts the book presents steps taken in bringing together an initial fabricator-customer group, the factors involved in creating initial demand, and, finally, developing the growing market. In conclusion the author, E. Raymond Corey, suggests some of the basic considerations which might be taken into account in dealing with the overall marketing job which the materials producer undertakes in the development of markets for new materials. Available from the Division of Research, Harvard Business School, Soldiers Field, Boston 63, Mass. Price: $4.00.

A publication which comprehensively catalogs the activities of the textile engineering and accessories industries in the United Kingdom is the *Textile Machinery Index*. Compiled in cooperation with the Textile Machinery and Accessory Manufacturers' Association, the index lists exhaustively the services and commodities of engineers, textile machinists, makers of accessories and factory equipment, chemicals, and mill supplies, raw materials, metals, alloys, processing foundry equipment, machine tools, etc. An interesting index system permits instant selection of the pertinent sections without cross references. Available from John Worrall Ltd., Central Works, Oldham, England.

The first chapter of a new book, *Basic Chemistry of Textile Preparation*, deals generally with fiber structure and with manipulative methods for its investigation. The chemistry of the natural fibers follows. Man-made fibers are preceded by a discussion of plastics explaining the general principles of various types of polymerization and the particular features which must be present for the formation of a satisfactory textile fiber. Scientific principles of wetting and detergency, and methods suitable for cleansing both natural and synthetic fibers are covered extensively in Chapter 6, which also contains outlines of the other preparatory processes such as mercerization, chlorination, milling, carbonizing, creping, etc. Bleaching is described in Chapter 7. Chapter 9 on tests and defects includes tables on fiber identification and probable causes of various kinds of faults. (Companion volume: "Basic Chemistry of Textile Coloring and Finishing".) Philosophical Library, Inc., 15 East 40th St., New York 16, N. Y. Price, $6.00.

Basic Chemistry of Textile Coloring and Finishing begins with an account of the various types of dyes and other coloring materials with the conditions under which each is applied, together with the related subject of stripping. There follows a brief account of the machines used in the dyeing of fibers, yarns, fabrics and garments, and of instrumentation and control methods. Chapter 3 covers the theory of dyeing, transfer of dye to fabric, thermodynamic and kinetic aspects of dyeing, etc. Finishing is divided into processes depending on the physical properties of the fibers, assisted finishes, chemical finishes, polymer finishes, and various kinds of proofing. It is followed by mechanical and chemical printing. (Companion volume: "Basic Chemistry of Textile Preparation".) Philosophical Library, Inc., 15 East 40th St., New York 16, N. Y. Price, $6.00.

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The heavier gauge stainless steel used in this new sleeve supplies its own rigidity and eliminates ribbing. This permits greater hole area and assures much faster dye penetration. Beaded and flared bottom prevents yarn slippage. This simplified construction saves up to 15% in initial cost. Greater strength gives longer service. All sleeves are perfectly sized for roundness and the holes are evenly spaced for uniform dye penetration. Ends are 100% level and rounded to prevent snagging. All tubes are pacivated for corrosion protection. Write today for samples and quotations.

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10-2 HYDRAULIC OIL COOLERS. Bulletin No. 55-69 discusses design and construction features of the Series OCW (water type) and OCA (air type) coolers. Write Vickers, Inc., Box 302, Detroit 32, Michigan.

10-3 VARIABLE SPEED DRIVES. New bulletin on Variable Speed Drives with touch control contains information about features, operating principle, design, component parts, etc. Write for Bulletin 1600-B7 P, Adv. & Sls. Prom. Dept., Worthington Corp., Harrison, New Jersey.

10-4 ACETOPHENONE. New bulletin describes how this simple aromatic ketone is an excellent solvent for many gums, resins, dyestuffs, and high-melting aromatic chemicals. Write for Technical Bulletin F-6970, Carbide & Carbon Chemicals Co., 30 East 42nd St., New York 17, N. Y.

10-5 STEAM PRESSURE REDUCING VALVES. Six-page handbook No. BV-56, describes a complete line of spring loaded, piston operated and internal pilot actuated steam pressure reducing valves. Write Atlas Valve Co., 280 South St., Newark 5, N. J.

10-6 ASCO CONDENSED VALVE. The latest designs in ASCO's extensive line of 2, 3 and 4 Way Solenoid Valves are included in this "easy to read" condensed catalog No. 201. Write Automatic Switch Co., 391 Lakeside Ave., Orange, N. J.

10-7 CONTROL VALVES. Three- and four-way directional control valves for fluid power systems up to 3000 psi, are described in a new 16-page bulletin 80300. Write The Oilgear Co., 1560 West Pierce St., Milwaukee 4, Wisconsin.

10-8 HERMETIC CENTRIFUGAL REFRIGERATING MACHINE. Engineering data for Carrier's new hermetic centrifugal refrigerating machine is present in an illustrated catalog, designed specifically to assist architects and consultants. Write Carrier Corp., Syracuse 1, New York asking for Catalog No. 19C-100.

10-9 "MEASUREMENT OF VIBRATION." Booklet describes the common vibration terms, a general purpose vibration measuring instrument with a number of useful accessories, and outlines how this equipment is used in typical measuring applications. Write General Radio Co., 275 Massachusetts Ave., Cambridge 39, Mass.

10-10 HEATING AND VENTILATING UNITS. Catalog 344 describes and illustrates the 17 sizes available in McQuay's "HC" line. Write McQuay, Inc., 1600 N. E. Broadway, Minneapolis 13, Minn.

10-11 HORIZONTAL AND DOWN FLOW UNIT HEATERS. Catalogs 322 and 762 describes and illustrates McQuay's complete line of standard and high CFM units suitable for use with steam or hot water. Write McQuay, Inc., 1600 N. E. Broadway, Minneapolis 13, Minn.

10-12 TEXTONE (SODIUM CHLORITE) IN TEXTILE PROCESSING. Booklet describes use of Textone in the bleaching of cottons and synthetic fibers, the oxidation of vat and sulphur dyes, and the stripping of nylon in hosiery mill procedure. (Enclose Company letterhead with request.) Write Industrial Chemicals Div., Olin Mathieson Chemical Corp., Mathieson Bldg., Baltimore 3, Md.

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BUSINESS MAGAZINE EDITION

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Try Laurel OLITEX 4M as a softener for your yarns, warps and fabrics, particularly those that have been dyed with sulphur black. It will give just the right degree of softness and lubrication to the yarn. And watch the shade bloom! Laurel OLITEX 4M has been performance tested over many years. It is available in liquid form, easily dispersed in water—no boiling or homogenizing needed. Like a sample? Write.

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6. FACTORING SERVICE — Booklet by Trust Company of Georgia gives advantages of factoring, including also information on general backing and pension plans. — TRUST COMPANY OF GEORGIA, Atlanta, Ga.

8. TEXTILE RESEARCH AT AMERICAN VISCOSE — Color booklet tells the story of the Textile Research Department which is, in effect, a many-sided textile mill. — AMERICAN VISCOSE CORP., 350 Fifth Avenue, New York 1, N. Y.

11. "WHERE DID THEY HIT PAY DIRT?" — Booklet describes how many manufacturing concerns have come South and why they found it profitable. Gives industrial advantages of the Southeast. Write CENTRAL OF GEORGIA RAILWAY, Industrial Development Department, 501 Rhodes Haverty Bldg., Atlanta 3, Georgia.

15. NEW INDUSTRIAL FIBER — Technical bulletin now available on Fortisan-36, new industrial fiber by Celanese. Uses text, charts and diagrams to present technical properties, characteristics and recommendations for processing. — TEXTILE SALES DEPARTMENT, Celanese Corporation, Charlotte, N. C.

17. A FAIR DAY'S PAY AND IN RETURN A FIAR DAY'S WORK — 8-page booklet outlining the services offered to industry for the proper utilization of labor, material and equipment, and the resulting advantages for both labor and management. — AMERICAN ASSOCIATED CONSULTANTS, INC., 250 Park Ave., New York, N. Y.

18. RAYON—MILE BY MILE — Color booklet describes how Industrial Rayon Corporation produces rayon mile by mile which is perfect inch by inch. — INDUSTRIAL RAYON CORP., Fifth Ave., New York 18, N. Y.

22. THE WONALANCET WAY — Is the title of an editorial booklet published five times a year and deal with current problems which appear worthwhile at the time they are written. — WONALANCET COMPANY, 128 Burke St., Nashua, N. H.

23. TEXTILE STEELS — Six booklets are available from Atlantic Steel Company which will prove valuable to persons concerned with the purchase or use of steel. — ATLANTIC STEEL CO., P. O. Box 1714, Atlanta 1, Ga.

24. THE CHEMSTRAND NYLON STORY — Booklet describes one of the greatest industrial ventures of the textile industry in the South — the birth and growth of Chemstrand Nylon. — CHEMSTRAND CORP., 350 Fifth Ave., New York 1, N. Y.

PLANT & PLANT MAINTENANCE . . .

102. "TANK TALK" — Sixteen page booklet of illustrations showing various types of elevated steel tanks constructed and erected by manufacturers as well as stand pipes, reservoirs, storage and high pressure vessels; cylinders, along with helpful technical data, also a list of what a few of the cotton mills, etc., said — R. D. COLE MANUFACTURING COMPANY, Newnan, Ga.

103. HUMIDIFICATION, EVAPORATIVE COOLING — Bulletins available displaying AMCO automatic self-cleaning atomizers, controls, and evaporative cooling equipment — AMERICAN MOIST'NING CO., 260 W. Exchange St., Providence, R. I.

104. STORAGE WATER HEATING — Isotherm Storage Water Heating Bulletin No. 923 on hot water heating to stretch boiler capacity. Write FRED D. SCHAUB ENGINEERING CO., 2110 South Marshall Blvd., Chicago 23, Illinois.

105. CASTERS AND WHEELS — Catalog gives complete description on full line of industrial casters and wheels. Features patented "LOCKWELD" Steel Casters Without A Kingpin" both Single and Double Ball Race. — THE FAIRBANKS CO., 393 Lafayette St., New York 3, N. Y.

106. FINNELL COMBINATION SCRUBBER-VAC —Illustrated literature gives complete specifications and describes various methods of combination-machine-scrubbing, including method recommended for cleaning oily floors. — FINNELL SYSTEMS, INC., 1300 East St., Elkhart, Indiana.

111. CERTIFIED CLIMATE AIRCHANGER SYSTEM — Bulletin describes Certified Climate Airchanger System as used with direct humidification for partial or complete air conditioning. — PARKS-CRAMER CO., Fitchburg, Mass.

112. HARDWOOD FLOORING — Booklet entitled "Specialist in Manufacturing of Hard Maple Flooring for textile plant." For complete information, write — CONNER LUMBER & LAND COMPANY, P. O. Box 810, Wausau, Wisconsin.

113. COTTON MILL EQUIPMENT — This book traces pictorially the steps in processing raw cotton into finished cloth. It shows the equipment needed for all phases of production, as well as containing a "Useful Information" section on Power Factor Correction, Lighting, Circuit Protection, etc. — WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

114. PENETRATING WOOD FINISH — Bulletin gives applications, uses and application specifications of floor seals for textiles. — E. I. DU PONT DE NEMOURS & CO., INC., FINISHES DIVISION, Wilmington, Delaware.

115. FOAMGLAS — Illustrated brochure features information on how the use of Foamglas cellular glass insulation solved the severe insulating problems of leading users. — PITTSBURGH CORNING CORP., One Gateway Center, Pittsburgh 22, Pa.

116. STOP CORROSION — Details on steel Pecpaint for metal wood and concrete maintenance solving condensation problems. — TRUSCON LABORATORIES, Box 69, Milwaukee Junction, P. O. Dept. T, Detroit 11, Mich.

117. CLEANING SYSTEMS — Booklet entitled "Certified Climate and Cleaning Systems" gives latest information on system. Products and uses fully discussed with two story layout of Certified Climate central station air conditioning system. — PARKS-CRAMER CO., Fitchburg, Mass., and Charlotte, N. C.

118. LIQUIDATION INFORMATION — Information available on how to profitably dispose of properties being liquidated. Tells how Comer will buy, sell and relocate industry in your former site. — COMER MACHINERY CO., 684 W. Peachtree St., Atlanta, Ga.

120. STAINLESS STEEL FOR TEXTILES — 40 page booklet gives application and advantages of stainless in textile plant equipment of all types. — ALLEGHENY LUDLUM STEEL CORP., Dept TI-71, Oliver Bldg., Pittsburgh 22, Pa.

121. CRANES AND HOISTS — Portfolio of bulletins describes the complete line of Shepard Niles traveling hoists and floor or cab operated traveling cranes. — SHEPARD NILES CRANE & HOIST CORP., Montour Falls, N. Y.

122. TEXTILE MILL CLEANING GUIDE — Useful book by Oakite prescribes methods and means of proper mill cleaning and maintenance. — OAKITE PRODUCTS, 28C Rector St., New York 6, N. Y.

123. ROLLER BEARINGS FOR TEXTILES — Easy to read non-technical bulletin describes where and how Hyatt Roller Bearings are employed for more profitable textile production. — HYATT BEARINGS DIV., GENERAL MOTORS CORP., Harrison, N. J.

125. STATIC ELIMINATION — Bulletin by Simco describes effective, simple, safe and inexpensive means of eliminating static. — SIMCO COMPANY, 986 Walnut St., Lansdale, Pa.

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126. TOLEDO TRUCK SCALES — Booklet tells how mills may save on installation and throughout long, useful lift of Toledo Truck Scales. Gives capacities and advantages. — TOLEDO SCALE COMPANY, Toledo 1, Ohio.

127. SOLENOID VALVES — Bulletin "V" lists sizes from ⅛ inch to 3 inches; valves for normally open or closed service; stainless steel or Jenkins disc seats; three way solenoid valves, etc.; typical installations. — THE JOHNSON CORP., Three Rivers, Mich.

130. STAINLESS STEEL FABRICATION — Illustrated color booklet by Sims describes the advantages of stainless steel with regard to textile operations. Also includes information on ventilating and drying, slasher exhaust, and materials handling systems. — SIMS METAL WORKS, West Point, Ga.

131. "AIR-PROCESSING" — Set of three bulletins showing real meaning of the term, where it can be used, the requirements for a successful system, etc. — J. O. ROSS ENGINEERING CORP., 444 Madison Ave., New York 22, N. Y.

132. AUTOMATIC BOILERS — Bulletin describes POWER-MASTER Automatic Boilers for light and heavy oils, gas or combination Gas-Oil Firing. Complete table of data. — ORR AND SEMBOWER, INC., Reading, Pa.

133. AIR LINE FILTERS — Catalog describes various air line filters for removal of oil, corrosive moisture, abrasive pipe scale, rust, and other solids from compressed air lines. Write for Catalog No. 700. — C. A. NORGREN CO., 3450 So. Elati St., Englewood, Colo.

134. CUT WATER TREATMENT COSTS — Folder presents Oakite Airefiner No. 52, a mildly alkaline compound, that is said to control scale, slime, algae and corrosion. Write OAKITE PRODUCTS, INC., 126C Rector St., New York 6, N. Y.

135. COLOR CONDITIONING — Booklet illustrated in color describes how Du Pont color conditioning cuts color to work for you. Many ideas, safety brought out which color can aid. — E. I. DU PONT DE NEMOURS & CO., INC., FINISHES DIV., Wilmington 98, Delaware.

138. METAL CONVEYOR BELTS — Recent catalog describes and illustrates Ashworth's entire range of manufacture, including the new Flat Wire Belt design and application, along with their Woven Wire Constructions and Positive Drive Chain Belts. —ASHWORTH BROS. INC., METAL PRODUCTS DIV., Fall River, Mass.

141. SEAMLEX METAL HOSE — New illustrated bulletin No. 955 gives essential information on Seamless Bronze Gas and diesel exhaust hose. Write SEAMLEX CO., INC., 41-25 24th St. Long Island City, N. Y.

143. UNIT HEATER — The latest improvements, specifications and complete performance data for Herman Nelson horizontal and vertical unit heaters have been written into a new 36-page product bulletin by the AMERICAN AIR FILTER CO., INC., 215 Central Ave., Louisville, Ky.

144. SCHAUB "99" DEAERATORS — Bulletin No. 1300 explains how modern design, a simplified principle and advanced engineering now bring effective deaeration at a budget price. Write FRED H. SCHAUB ENGINEERING CO., 2110 South Marshall Blvd., Chicago 23, Illinois.

146. FUNCTIONAL GLASS BLOCK DATA — Folder shows in detail daylighting function of Light-directing and Light-diffusing Functional Glass Blocks. — PITTSBURGH CORNING CORP., 307 4th Ave., Pittsburgh 22, Pa.

150. RINCO HUMIDIFIERS AND COOLING SYSTEMS — Bulletin describes new atomizers with construction becoming air conditioning in humidifier systems, evaporative cooling systems. — ALDRICH MACHINE WORKS, Greenwood, S. C.

151. INDUSTRIAL BRUSHES — Illustrated booklet of industrial brushes featuring textile usage on shears, printing machines — also flock, raising and cylinder brushes. — M. W. JENKINS SONS, INC., 444 Pompton Ave., Cedar Grove, N. J.

153. LAMINATED TEXTILE PLASTICS — Booklet by Synthane Corporation shows variety, application, and advantages of laminated plastic parts and supplies for the textile industry. — SYNTHANE CORPORATION, TEXTILE DIVISION, Oaks, Penna.

161. AUTOMATIC CLEANING EQUIPMENT — Complete booklet by American MonoRail shows working details and advantages of the Tri-Rail Cleaner, a great improvement over the original unit. — AMERICAN MONORAIL CO., 13107 Athens Ave., Cleveland 7, Ohio.

162. MODERN METHODS OF TEXTILE FLOOR MAINTENANCE — Illustrated treatise on the history of floor cleaning in textile plants and a detailed description of new methods for reducing floor cleaning costs as well as preserving textile mill floors.— G. H. TENNANT COMPANY, 2530 N. Second St., Minneapolis 11, Minn.

173. BLOWERS AND EXHAUSTERS — Bulletin No. 3014-D describes types "E" and "RE" electric blowers and exhausters. Uses and full description of each with detail drawings. — BUFFALO FORGE CO., 490 Broadway, Buffalo 5, N. Y.

174. PAINT STRIPPING BOOKLET — Illustrated booklet providing helpful data on latest materials and methods for simplified stripping of paint. Methods described include: (1) steam gun; (2) hot flow-on; (3) cold spray; and (4) tank immersion. — OAKITE PRODUCTS, INC., 22 Thames St., New York 6, N. Y.

181. AIR FILTRATION — Bulletin 234 describes and illustrates the Auto-Airmat, which is the Automatic Dry-Type air filter. Principle of operation, performance, characteristics, construction and installation fully discussed. — AMERICAN AIR FILTER COMPANY, INC., 275 Central Ave., Louisville 8, Ky.

POWER TRANSMISSION, MOTORS, BELTING, LUBRICATION . . .

203. TREADED LEATHER BELTING — This 16 page booklet describes Roughhouse line of patented, specially treaded leather belting for all types of power transmission. Booklet includes valuable engineering and maintenance section. — E. F. HOUGHTON & CO., Philadelphia, Pa.

205. MAINTENANCE OF VARIABLE SPEED DRIVES — Bulletin describes and illustrates the simple but comprehensive program available to keep Reliance V-S Jr. Drives in operation at peak efficiency.—RELIANCE ELECTRIC & ENGINEERING CO., 1088 Ivanhoe Rd., Cleveland 10, Ohio.

206. CUTLER-HAMMER MOTOR CONTROL — Booklets describe the combination starters for the textile industry, for roving frames and spinning frames, loom switch and Cutler-Hammer Motor Control for textile cards. — CUTLER-HAMMER, 315 N. 12th St., Milwaukee, Wisconsin.

209. STEEL PULLEYS — Pictorial review of American Steel Pulleys, their manufacturing processes and some of their end uses. Textile pulleys are featured. — AMERICAN PULLEY CO., 4200 Wissahickon Ave., Philadelphia 29, Pa.

211. LUBRICANTS FOR TEXTILES — Working samples available of Ben Boy Bearing Lubricants, Spindle Oils, Non-Melting Oils, Twister Lubricants. — GEORGIA-CAROLINA OIL CO., Box 101, Macon, Ga.

212. GATES TEXTILE ACCESSORIES — Handy pocket-size catalog BHM-7, fully illustrated, gives specifications of Gates textile accessories including pickers, lug straps, check straps, cone belts, evener belts, harness straps, take-up roll covering, and others. — THE GATES RUBBER COMPANY, 1001 Broadway, Denver 17, Colo.

213. LUBRICATION OF ELECTRIC MOTORS — Illustrated bulletin on lubricating and cleaning ball and roller bearings on electric motors. — NEW YORK & NEW JERSEY LUBRICANT COMPANY, 292 Madison Ave., New York 17, N. Y.

218. BALL BEARINGS FOR TEXTILE MACHINERY — A 40-page catalog illustrating ball and roller Bearing units for replacement or new applications in all phases of textile processing. — THE FAFNIR BEARING CO., New Britain, Conn.

222. AUTOMATIC PRODUCTION CONTROL — Booklet by Reeves Pulley Company, shows application of many automatic processes and controls to the textile industry. Well illustrated, it contains engineering data quite useful to anyone interested.—REEVES PULLEY COMPANY, Columbus, Indiana.

223. LUBRICATION OF BEARINGS — Booklet entitled "Lubrication and Maintenance of Ball and Roller Bearings" gives helpful tips on how to prolong bearing life. Also includes valuable information on storage and handling of lubricants. — NEW YORK & NEW JERSEY LUBRICANT CO., 292 Madison Ave., New York 17, N. Y.

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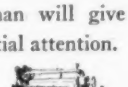

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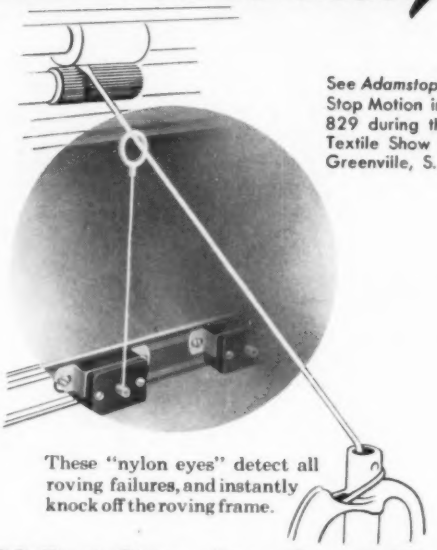

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HELPFUL BOOKLETS FREE!

223. HYDRAULIC SLASHER DRIVES — Color booklet by Vickers shows how hydraulic drives provide an economical approach to improved slasher operation. Has detailed pictures and enumerates advantages. — VICKERS, INC., 1036 Peachtree St., Atlanta, Ga.

228. NEW NEEDLE OIL — Booklet by Shell gives facts on Vexilia Oil 117, which gives 12 times more rust protection during operation and during shut-down periods. — SHELL OIL CO., 50 West 50th St., New York 20, N. Y.

229. DODGE GENERAL POWER TRANSMISSION MACHINERY — Catalog describes various types of power transmission apparatus by Dodge. Gives specifications, sizes, applications, and prices. Very comprehensive. — DODGE MANUFACTURING CORP., Mishawaka, Indiana.

230. INDUSTRIAL GREASES — Now available from Sinclair is a bulletin detailing qualities and specifications of multi-purpose lithium soap Industrial greases. — A. S. RANDAK SINCLAIR REFINING CO., 600 Fifth Ave., New York, N. Y.

231. MECHANICAL POWER TRANSMISSION — 328-page catalog contains helpful information on Dodge products, including sectional drawings, dimensions, weights, prices, application details and engineering tables. Write DODGE MFG. CORP., Mishawaka, Indiana.

232. "VARI-PITCH" SHEAVE BULLETIN — Stationary and motion control of "Vari-Pitch" sheaves for speed variation up to 76% by mean s o' pitch diameter adjustment, capacities 1 to 600 HP are described in new bulletin. — ALLIS-CHALMERS MFG. CO., Milwaukee 1, Wisconsin.

233. LEATHER BELTING — Booklet by Atlanta Belting Co., describes comprehensively the selection, installation, and proper maintenance of modern leather belting. — ATLANTA BELTING CO., 508-510 Whitehall St., S.W., Atlanta, Ga.

234. SPINDLE OIL — Color brochure describes "Gulfspin," showing how it insures against excessive wear in cast iron bolsters and provides freedom from spindle wobble. — GULF OIL CORPORATION, Gulf Bldg., Pittsburgh, Pa.

235. JOHNSON LEDALORL BEARING BRONZE — Illustrated booklet telling the complete story of Johnson Ledaloyl Bronze, the newest development in self-lubricated bronze for textile bearings and bushings. — JOHNSON BRONZE COMPANY, New Castle, Pa.

237. MOTOR CONTROL — Brochure gives description and engineering data on the Cutler-Hammer Motor Control for roving and spinning frames. Uses listed and advantages discussed. — CUTLER-HAMMER INC., Milwaukee, Wisc.

238. TEXTILE LEATHERS CATALOG — Catalog by J. E. Rhoads & Sons gives characteristics and advantages of Rhoads "Tannate" leathers. plete line is listed and described, and tips for correct installation. Copiously Illustrated. — J. E. RHOADS & SONS, 2100 W. Eleventh St., Wilmington 99, Del.

240. CATALOG OF NEEDLE BEARINGS — New catalog conveniently presents design, application and use data for five types of needle bearings. Actually an engineering short course on bearings with visual index units. — THE TORRINGTON CO., Torrington, Connecticut.

242. CYLINDERS AND BOOSTERS — Book by Miller Fluid Power Co. contains complete listing of air and hydraulic cylinders and boosters "in stock," price lists, and graphic explanation of their equipment. Write MILLER FLUID POWER CO., 2040 N. Hawthorne, Melrose Park, Illinois.

253. TEXTILE LUBRICATION — "Lubrication" a magazine published by the Texas Co. is available. Shows methods and means of lubricating chain drives in very comprehensive form. — THE TEXAS CO., 135 East 42nd St., New York 17, N. Y.

256. METERED LUBRICATION — Booklet entitled "From Fiber to Fabric." Shows advantages of central lubrication systems as applied to various departments of textiles. Write — BIJUR LUBRICATING CORP., Rochelle Park, N. J.

265. SERVICE PROCEDURE FOR BALL BEARINGS — A helpful manual for maintenance engineers giving helpful hints on disassembly, inspection, cleaning, lubrication, and replacement of ball bearings in any mechanism. — NEW DEPARTURE, DIVISION OF GENERAL MOTORS CORP., Bristol, Conn.

INSTRUMENTS, STEAM SPECIALTIES . . .

301. JOHNSON ROTARY PRESSURE JOINTS—Bulletin describing the rotary pressure joint which requires no packing, no lubrication and no adjustment, giving installation and maintenance instruction, types, sizes, dimensions and prices. — THE JOHNSON CORP., Three Rivers, Mich.

302. TEXTILE INSTRUMENTATION—New booklet gives details on Brush Lapcheck, Brush Tension Analyzer, Brush Imperfection Counter, and Improved Uniformity Analyzer. Pictures uses and capacities of each machine discussed. — BRUSH ELECTRONICS CO., 3405 Perkins Avenue, Cleveland 14, Ohio.

304. WASTE HEAT RECOVERY — Color booklet describes Bready System of waste heat recovery from polluted or soiled waste water. Includes pictures and complete facts. — LUDELL MFG. CO., 5200 West State Street, Milwaukee, Wisconsin.

305. AUTOMATIC MOISTURE CONTROL—Booklet tells how Hunter Electro-Psychrometers are used in measuring percentage of moisture in all classes of textiles, whether yarns or fabrics.—HUNTER CONTROLS, INC., DIV., JAMES HUNTER MACHINE CO. North Adams, Mass.

310. HOW TO SELECT LIQUID METERS — Helpful free bulletin covers meters for brines, soap solutions, hot and cold water and other chemical solutions that can be handled by composition bronze meters. Write for bulletin 566(UT). — NEPTUNE METER CO., 10 W. 50th St., New York 20, N. Y.

313. "THE FAIRBANKS VALVE COMPARISON CHART" — New reference manual important in specification, ordering, and using of bronze and iron-body valves. — THE FAIRBANKS COMPANY, 393 Lafayette Street, New York 3, N. Y.

315. MICRO SWITCH BULLETIN — Complete selection of bulletins featuring Micro Switch products is now available. Includes prices, characteristics, applications, etc. — MICRO SWITCH DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., Freeport, Ill.

316. MOISTURE CONTROLLER AND INDICATORS — Literature available from Strandberg Engineering covers indicators for slashers, tenters, etc.; for direct connection to pickers, and automatic controllers for connection to same. — STRANDBERG ENGINEERING LABORATORIES, 416 W. Market St., Greensboro, N. C.

321. RED-RAY BURNERS — Bulletin describing use of Red-Ray Burners in preheating and partial drying to increase capacity of frame. — RED-RAY MFG. CO., 445 W. 45th St., New York, N. Y.

324. STROBOTAC — Informative reprint, "Strobotac Boosts Efficiency in Woolen and Synthetic Mills." — GENERAL RADIO CO., Cambridge 39, Mass.

337. COUNTING DEVICES — Catalog of Trumeter's complete line of counters for every application where counting, measuring or registering is required. Colored pictures illustrate each application. —TRUMETER COMPANY, 1265 Broadway, New York 1, N. Y.

339. NEW LUBRICATED PLUG VALVES—Illustrated booklet by The William Powell Co. features a new line of sami-steel and steel lubricated plug valves. Advantages include quick and positive shut off. — THE WILLIAM POWELL COMPANY, 2525 Spring Grove Ave., Cincinnati 22, Ohio.

CARDING, SPINNING, WINDING . . .

401. LUMMUS DUSTLESS, STEEL BLENDING FEEDERS — Bulletin describing automatically closing, positively locking door on feeders to prevent overloading, choking. — ALDRICH MACHINE WORKS, Greenwood, S. C.

402. AUTOMATIC CLEANING AND OVERHEAD HANDLING FOR TEXTILE MILLS — 24-page bulletin describing the American Monorail Automatic Cleaner for preventing accumulation of lint on spinning, twisting, winding and warping machines. Also for cleaning monitors and card room ceilings. — THE AMERICAN MONORAIL CO., Cleveland, Ohio.

403. TRAVELING CLEANERS — 4-page bulletin describes the improved Parks-Cramer Frame and Room Cleaners including the Underframe and Floor Sweepers. — PARK-CRAMER CO., Fitchburg, Mass.

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404. LAPLESS ENDLESS SPINNER — Bulletin and full information will be supplied on lapless endless spinner and coning belting. — TON-TEX CORPORATION, 31 Columbus Ave., Englewood, N. J.

408. CARD GRINDING INFORMATION — Outlines care of grinders, instructions on speed to run grinders, amount of oil to add to machine and other pertinent information. — B. S. ROY & SON CO., Worcester, Mass., and Charlotte, N. C.

410. SPINNING FRAME CONVERSIONS — Information available on how to get new-frame results and big-package economy at half the cost with Meadows Conversions. — MEADOWS MFG. CO., P. O. Station A, Atlanta, Ga.

411. SHEET METAL WORK — Pamphlet describes spinning cylinders, aspirators, card screens, sheet metal specialties. — GASTONIA TEXTILE SHEET METAL WORKS, INC., 222 East Long Avenue, Gastonia, N. C.

412. SERVICE FOLDER — Folder covers textile metal products including spinning and twisting cylinders, card screens, etc. — JENKINS METAL SHOPS, INC., Gastonia, N. C.

413. HIGH SPEED, AUTOMATIC QUILLER — Color booklet by Schlafhorst describes the "Autocoper" Automatic Quiller. Gives advantages, space requirements, etc. — TERRELL MACHINE CO., INC., Charlotte, N. C.

414. WORSTED SPINNING — Bulletin explaining and illustrating Saco-Lowell's new system for worsted spinning, from top yarn in five economical and efficient stages. — SACO-LOWELL SHOPS, 60 Batterymarch St., Boston 10, Mass.

415. DOUBLER-TWISTER FOR LARGE PACKAGES — Bulletin describing two new machines producing straight or tapered top bobbins. Suitable for filament or spun yarns up to three pound capacity. Individual thread stop motion fully discussed. — FLETCHER WORKS, INC., Philadelphia, Pa.

416. THE BRIEF SAGA OF THE RING TRAVELER — An interesting history relative to the ring traveler, which is in reality the basis of the spinning frame. John Thorpe's invention of ring traveler, the development of the spindle, and the invention of Rabeth's Bolster type spindle are covered. —NATIONAL RING TRAVELER CO., Pawtucket, R. I.

417. FEATHERTOUCH DRAFTING — Booklet describes in detail with pictures the most uniform drawing, the strongest drawing with the highest production per frame at the lowest cost. — IDEAL INDUSTRIES, INC., Bessemer City, N. C.

419. TEXTILE APRONS — Illustrated folder showing the steps in manufacture of genuine leather aprons for all types of long draft spinning and card room machinery. — TEXTILE APRON COMPANY, East Point, Ga.

442. WARPER BEAMS — Folder describes t high speed for rayon tire cord, cotton warper beams, cast aluminum end supports and large diameter heads. — U. S. BOBBIN SHUTTLE CO., Lawrence, Mass.

423. SPINDLE OILING MACHINE — Information available on new Spindle Oiling Machine. Features include filter system to clean oil for reuse; smaller size for narrow aisles. — WICACO MACHINE CORP., 4800 Stenton Ave., Wayne Junction, Philadelphia 44, Pa.

424. GREASE-SEALED, ANTI-FRICTION ROLLS — Booklet contains description and engineering drawings of the Cole grease-sealed, anti-friction rolls. Also contains information on dual apron controlled drafting units. — COLE ENGINEERING CORP., P. O. Box 153, Columbus, Ga.

425. HANDY REFERENCE TABLES — Folder showing spinning traveler speeds, sizes of ring fr etc. — VICTOR RING TRAVELER CO., Providence, R. I., and Gastonia, N. C.

426. UNIRAIL UPTWISTER — Bulletin describes Universal Winding's headless package or bobbin take-up Unirail Uptwister which gives you higher yarn quality and better packages at faster speeds and lower costs, according to the bulletin. Well illustrated with advantages discussed. — UNIVERSAL WINDING COMPANY, P. O. Box 1605, Providence, R. I.

429. BETTER FLYER AND SPINDLE EFFICIENCY — Entertaining booklet by Ideal Machine Shops gives facts about Flyers and Spindles which have helped many mills gain more efficient production, better yarn quality. — IDEAL MACHINE SHOPS, INC., Bessemer City, N. C.

431. TEXTILE VACUUM SYSTEM — Color bulletin by Spin Sa Vac describes application of their vacuum system to drawing, roving and spinning processes, and for the removal of broken ends, fly or sliver. Complete diagrams and shots of typical installations. — SPIN SA VAC CORPORATION, 1438 South Tryon St., Charlotte, N. C.

432. PRECISION TEXTILE WINDING — Bulletin on Kidde Tensions and Density Control for winding rubber cones. — WALTER KIDDE & CO., INC., Belleville, N. J.

433. PERMANENT PLATE MAGNETS — Bulletin shows how Eriez Magnetic Separators prevent fires and protect machinery from tramp iron in all types of textile mills. — ERIEZ MFG. CO., Erie, Pa.

434. SPINNING AND TWISTER RINGS — Catalog and price list now available on Whitinsville "Diamond Finish" spinning and twister rings. Complete details and pictures. — WHITINSVILL SPINNING RING CO., Chitinsville, Mass.

435. DOUBLE DECK TWISTERS — Bulletin describes Jumbo (8 oz. to 16 oz. headless or take-up spool packages) and Acme (up to 10 oz. packages) models for high speed twisting of silk, rayon, nylon, etc., to finest deniers. — U. S. TEXTILE MACHINE CO., Scranton 8, Pa.

438. MAINTENANCE INFORMATION FOR YOUR SCOTT TESTER — Booklet containing maintenance data for calibration of Scott Testers, clamps for testers, gear-box lubrication, and recording. — SCOTT TESTERS, INC., Providence, R. I.

437. PRECISION GEAR BULLETINS — Now available from Precision Gear are bulletins on machinery products for cleaning and picking, roving frames, spinning and twisting and a general catalog on gears. — PRECISION GEAR AND MACHINE CO., 2001 N. Tryon St., Charlotte 2, N. C.

438. HEADLESS PACKAGE TWISTER ELIMINATES REDRAWING — Literature shows high-speed Race Drive Twister for accurately built, tapered or straight-end headless packages which go direct to quilling or warping without redrawing. — U. S. TEXTILE MACHINE CO., Scranton 8, Pa.

439. PNEUMAFIL SUCTION CLEANING SYSTEMS — Booklet describes types of Pneumafil Systems, gives details of new Collector Unit model C-6. New type LFC Pneumafil is also discussed. Diagrams, comparison charts and installation pictures included. — PNEUMAFIL CORP., Charlotte 8, N. C.

440. CUSTOM MADE THREAD GUIDES — Color brochure describes complete line of American Lava Company's thread guides. Composition, properties, specifications of all designs included. — AMERICAN LAVA CORPORATION, Chattanooga 5, Tenn.

447. CONE WINDER — Form A93 describes the Foster Model 102 winder which produces the Foster knitting cone for spun yarns, warping cones and tubes for dyeing and twister supply. — FOSTER MACHINE COMPANY, Westfield, Mass.

448. AUTOMATIC BLENDING SYSTEM—Dodenhoff system, called "Fiber Meter" is fully described in color booklet. Gives actual operating results, ... pictures and illustrates typical conversion of old fashioned systems. — W. D. DODENHOFF CO., 745 Loundes Hill Road, Greenville, S. C.

449. NEW CONDENSER TAPE — Literature by Benjamin Booth describes newly introduced SUPR-O-TAPE, an impregnated fabric condenser tape. Shows actual sample of tape and gives complete prices. — BENJAMIN BOOTH CO., Allegheny Ave., & Janney St., Philadelphia 34, Pa.

450. HIGH SPEED AUTOMATIC QUILLER — Color booklet describes the Schlafhorst "Autocoper," listing its advantages and giving dimensions. — TERRELL MACHINE CO., INC., P. O. Box 928, Charlotte, N. C.

451. ROLLER BEARING SPINDLE — Color booklet gives principal features and main advantages of SMM Roller Bearing Spindle. Detailed drawings included. — H. PHIL WORTH, Box 1555, Greenville, S. C.

452. PNEUMAFIL LINT-FREE CREEL — Color booklet describes the new Airfoil Design Pneumafil type LFC with Built-in Lint-Free Creel. Gives complete details and pictures. — PNEUMAFIL CORPORATION, Charlotte 8, North Carolina.

453. EVENNESS TESTER — Folder explaining how this Tester takes the guess out of quality control and each processing step from carding through spinning. — USTER CORPORATION, Charlotte, N. C.

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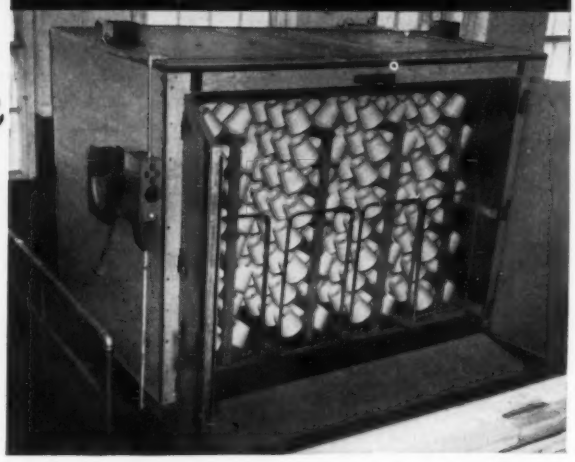

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444. OPENING AND CLEANING MACHINERY — Color brochure by Dodenhoff describes their waste machine, enclosed feeder, conveyors and cleaner. Specifications included with pictures. — W. O. DODENHOFF CO., Box 178, Greenville, S. C.

445. ROLLER BEARING SPINDLES — Illustrated booklet showing various types of Marquette Roller Bearing Spindles. The unique full-floating footstep bearing is pictured in cut-away views, and its advantages are described. — THE MARQUETTE METAL PRODUCTS CO., 1145 Galewood Ave., Cleveland, Ohio.

456. SRRL OPENER, SCREW CONVEYORS — Information available on Continental Gin Company's SRRL Opener. Also complete line of screw conveyors and accessories. — CONTINENTAL GIN CO., Birmingham, Ala.

458. CONICAL RINGS AND FLYERS — Special data available on the Herr conical rings and flyers. — HERR MANUFACTURING CO., INC., 318 Franklin St., Buffalo 2, N. Y.

459. TENSION CONTROLS — Folder describing tension compensation and automatic tension control. Three models — Standard, Warp, and Double Disc fully described with specific application. — WALTER KIDDE & CO., INC., 190 Main St., Belleville 9, N. J.

461. PRECISE WIND MACHINE — Form A-92 describes the Foster Model 75 widely used for winding straight or pineapple cones and tu es o and other filament yarns. — FOSTER MACHINE COMPANY, Westfield, Mass.

462. TEXTILE MACHINERY PARTS CATALOG — A 24-page illustrated catalog describing the complete line of Dayco and Thorobred textile machinery parts including Cots, Aprons, Loop Pickers, Lug Straps, etc. — DAYTON RUBBER CO., Dayton, Ohio.

465. RAGAN SELF-LUBRICATING RINGS — Complete data available on new self-lubricating rings, outlining unique construction and absence of oil. — RAGAN RING CO., 901 S. Main St., Eas Ga.

467. CARD CLOTHING — 8-page booklet by Benjamin Booth Company describes Strip-O-Matic Card Clothing and its advantages. — BENJAMIN BOOTH COMPANY, Allegheny Avenue & Janney Streets, Philadelphia, Pennsylvania.

469. SHORT CUT TO STAPLE FIBER SPINNING — Color brochure shows the ten steps in operation of the Turbo Tow Stapler, gives technical details and diagrams. — TURBO MACHINE COMPANY, Lansdale, Pa.

470. RATCHET DRIVE LUBRICATOR — Technical reference sheet describing an automatic ratchet driven lubricator is offered. Describes in detail key features, includes photograph. — BIJUR LUBRICATING CORP., 151 W. Passaic Ave., Rochelle Park, N. J.

471. FACTS ABOUT YOUR FLYERS AND SPINDLES — Booklet by Ideal Machine Shops shows how smooth Flyer and Spindle operation can help produce higher and more efficient output, good quality yarn, minimum wear, and larger bobbins. — IDEAL MACHINE SHOPS, Bessemer City, N. C.

472. TWISTING MACHINERY — Bulletin gives outstanding features, specifications facts and useful information on Novelty Yarn Twisters for Cotton, Silk, Worsted and Rayon Yarns. — COLLINS BROTHERS MACHINE COMPANY, 647 Roosevelt Ave., Pawtucket, Rhode Island.

473. ALUMINUM SECTION BEAMS — Information available on advantages of Hayes beams; includes prices and delivery schedules. — HAYES INDUSTRIES, INC., Jackson, Mich.

474. BALL BEARING COMB BOXES — Southern States Equipment Corp. offers literature on their famous C-1 Ball Bearing Comb Boxes. Description, working principle, cut-a-way views shown. — SOUTHERN STATES EQUIPMENT CORP., Hampton, Ga.

475. TEXTILE ROLL COVERINGS AND MILL SUPPLIES — Color booklet by Armstrong shows and describes their complete line of textile roll coverings, including also loom supplies, mill supplies, roll covering for cotton, silk and synthetic and woolen and worsted systems. An excellent guide book. — ARMSTRONG CORK CO., INDUSTRIAL DIV., Lancaster, Pa.

476. TEXTILE FIBER OPENER FOR COTTON, SYNTHETICS, WOOL — New brochure by Continental Cotton Gin Co. gives complete data on Centennial Opener which incorporates improvements on the original SRRL Opener. Complete operating procedure is described. — CENTENNIAL COTTON GIN CO., Columbus, Ga.

478. TIPS ON CARDING PROCEDURE—Monthly bulletin by Ashworth Brothers includes many useful tips and advice on carding operation, maintenance and care and is available to anyone interested. Bulletin is a reprint of section appearing on green paper in this issue. — ASHWORTH BROTHERS, Fall River, Mass.

482. TRU-DRAFT CREELS. Brochure describes the Bouligny Tru-Draft Umbrella Creel as easy to install, adaptable to all frames, completely adjustable, etc. Write THE BOULIGNY CO., P. O. Box 2115, Charlotte, N. C.

483. COST-CUTTING TEXTILE OILS. — New pamphlets have been issued on two oils: Gulfwin, the spindle oil that is said to reduce maintenance and power costs, and Gulftex 39, the constant-viscosity needle oil that is claimed to keep needles clean and smooth. Write GULF OIL CORP., Rm. [illegible], Gulf Bldg., Pittsburgh 30, Pa.

484. COLLECTO-VAC. Catalog 30-A describes Bahnson's new development, COLLECTO-VAC, for collecting lint, fly and broken ends. Write BAHNSON CO., Winston-Salem, N. C.

485. WEAVER'S KNOTTER — A catalog on the Boyce Weaver's Knotter giving a few instructions as to its use, recommendation as to the proper type knotter for the various types of yarns, and the spare parts that go to make up the knotter. — A. B. CARTER, INC., Gastonia, N. C.

488. COTTON SIZING WASTE PROBLEM SOLUTION — Booklet describes the use of soluble, low-pollutional CMC in place of starch and how this can reduce costs. — HERCULES POWDER CO., Wilmington 99, Delaware.

WEAVING, SLASHING . . .

501. LOOMS — An accordion type folder is available entitled "Unfolding to You the World's Largest Line of Looms." Information on all types fully discussed. — CROMPTON & KNOWLES LOOM WORKS, Worcester 1, Mass.

502. COUNTING AND MEASURING DEVICES— Condensed textile catalog illustrating and describing pick counters, hank counters, cut meters, measuring counters. Wide range of counting devices for production recording on all types of textile machinery. — VEEDER-ROOT, INC., Hartford, Conn.

504. LOOM SUPPLIES — Literature describing complete line of straps, strapping, pickers, dobby cords, sticks, binders, bumpers, brake lining and allied products. — E. H. JACOBS NORTHERN DIV., THE BULLARD CLARK CO., Danielson, Conn.

505. INNOVATION IN TEXTILE DRYING — Booklet by J. O. Ross gives details on Steam or Gas "Hot Air" Slasher for high speeds at low cost. — J. O. ROSS ENGINEERING CORP., 444 Madison Ave., New York 22, N. Y.

506. SLASHING HINTS — A 20-page booklet offering helpful hints on warp sizing. Subjects: Size cooking equipment, section beam tension, sizing seivages, cooking, use of split rods, weighing for the mix, tips on cooking equipment, storage in kettles, etc. — SEYDEL-WOOLLEY & CO., 748 Rice St., N.W., Atlanta, Ga.

508. LOOM PRODUCTION CHARTS — Convenient celluloid card showing yards per loom per week of 40 hours at various loom speeds. — RALPH E. LOPER CO., Greenville, S. C.

510. CONTROLLED SIZING — Brochure in color describes the legend, operation and specification of the new Griffin Size Machine. Features most important basic improvements in size machines in many years. — IRA L. GRIFFIN & SONS, P. O. Box 1576, Charlotte, N. C.

511. ALUMINUM BEAMS — Catalog No. 1-21 describes Hayes magnesium and aluminum specialties for the textile industry. Illustrates this company's beams that are one-third the weight of conventional types. — HAYES INDUSTRIES, INC., Jackson, Mich.

514. THE STORY OF STARCHES — Semi-technical booklet tells the story of starches and information on how they are produced, the creation of new specialty starches, the unique "man-made" derivatives, and the handling of starches. — NATIONAL STARCH PRODUCTS, INC., 270 Madison Avenue, New York 16, New York.

HELPFUL BOOKLETS FREE!

515. WARPING, SLASHING, WEAVING ARNEL YARNS — 8-page booklet preliminary information on Arnel Triacetate Yarns. — CELANESE CORP. OF AMERICA, TEXTILE DIVISION, Box 1414, Charlotte, N. C.

517. LOADING SYSTEM — Bulletin 417, on pneumatic loading system for Saco-Lowell slasher size box squeeze rolls, contains installation photo, features, specifications, and prices. — THE FOXBORO COMPANY, Foxboro, Mass.

519. ALIGNING LAYS — Informative booklet gives setting instruction for aligning lays. Complete treatment, including step-by-step drawings.—DRAPER CORPORATION, Hopedale, Massachusetts.

520. HELP ON SIZING PROBLEMS—Information from Southern Sizing Company outlines how the r superior sizing compounds and superior service help make your mill run better. — SOUTHERN SIZING CO., East Point, Ga.

521. STEEL WARP BEAMS — 20 page Catalog No. 45 illustrating Standard and Special Purpose Warp Beams for the weaving industry, both broad-loom and narrow fabrics. Also Textile Machinery Specialties. — MILTON MACHINE WORKS, INC., Milton, Pa.

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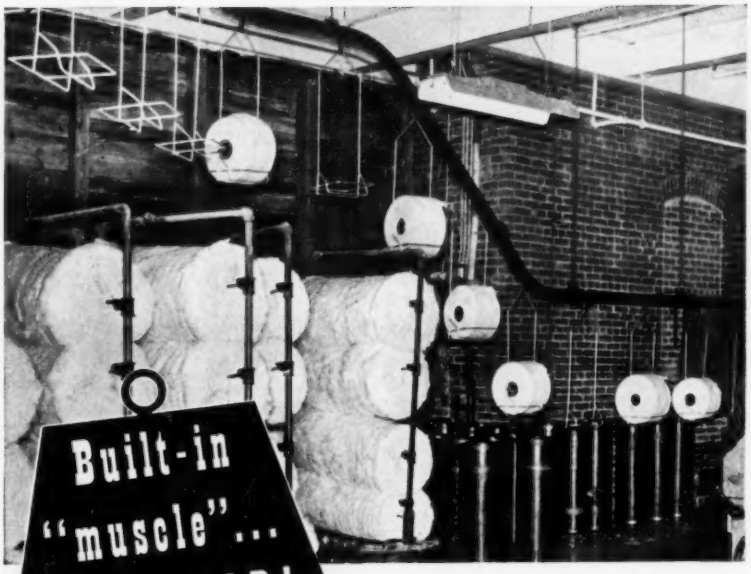

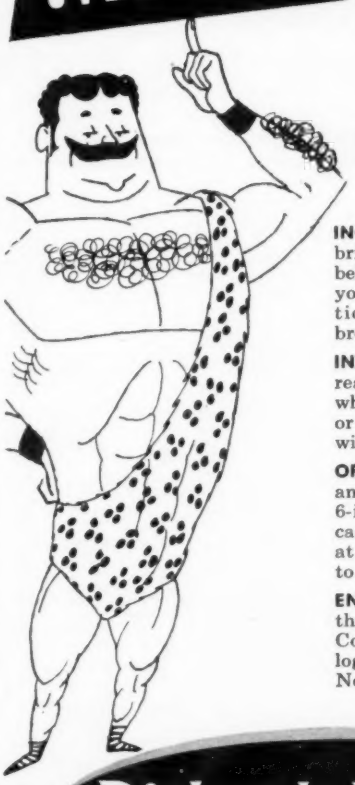

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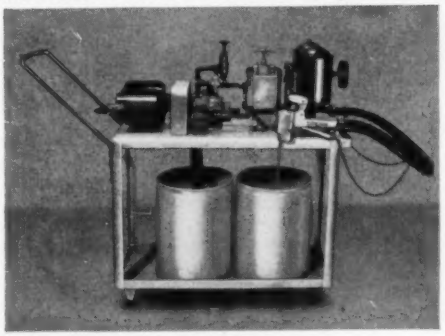

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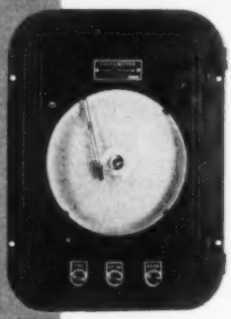

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1008. CASTERS AND WHEELS — An illustrated booklet with complete specifications showing a complete assortment of Cotton Textile Casters. — THE COLSON CORP., Elyria, Ohio.

1009. HOW TO TEST CORRUGATED BOXES — 24-page booklet offers a comprehensive check-list by which to judge the protective qualities and durability of specific corrugated boxes. — HINDE AND DAUCH, Sandusky, Ohio.

1010. CONVEYOR KEY BOOK — A guide to production "step-ups" now possible with modern conveying. Shows time-and-effort savings. Well illustrated with photos showing plant layouts and sketches showing where, how and why different types of conveyors are used for maximum results.—LOGAN CO., 1115 Franklin St., Louisville, Ky.

1015. OVERHEAD MATERIALS HANDLING — Three booklets available from Louden Machinery Co. treat economical material handling, twin fan ceiling cleaners, and shock proof electrification. — LOUDEN MACHINERY CO., Fairfield, Iowa.

1018. BALL BEARING TROLLEYS — 20 page catalog by Link Belt describes entirely new line of ball bearing trolleys for overhead conveyors. Contains pictures, specifications charts and diagrams. — LINK-BELT CO., 307 North Michigan Ave., Chicago 1, Illinois.

1019. HOW TO SELECT A LIFT TRUCK — An equipment analysis guide and rating table has been introduced by Hyster for comparison and selection of fork lift trucks. Gives an excellent means for price comparison between trucks of a similar nature. — HYSTER CO., 2902 N. E. Clackamas St., Portland 8, Oregon.

1020. "HOW TO SEAL CORRUGATED SHIPPING BOXES" — 24-page publication features new format illustrations and text material, thoroughly revised to explain all facets of modern package sealing. Write HIND & DAUCH, Sandusky, Ohio

1021. CORRUGATED CONTAINERS — Brochure by Gaylord describes Multi-Unit and Bulk Containers which have been adapted for the textile field. — GAYLORD CONTAINER CORP., 111 N. 4th St., St. Louis 2, Mo.

1022. INDUSTRIAL TRACK EQUIPMENT — Color booklet describes SAFE-RAIL track developed as a supplement to the ZIG-ZAG power conveyor. Complete engineering data included. — RICHARDS-WILCOX MFG. CO., Aurora, Ill.

1024. IMPROVED MATERIALS HANDLING — Booklet entitled "Materials in Motion . . . by National," describes the use of lightweight vulcanized fiber containers to increase efficiency, reduce costs and simplify methods of materials handli Write NATIONAL VULCANIZED FIBRE CO. 1056 Beech Street, Wilmington 99, Del.

WHAT'S NEW IN TEXTILE TRAINING?

FIND OUT FIRST HAND!

Booth 336

GREENVILLE

INTERNATIONAL CORRESPONDENCE SCHOOLS

Allied Chemical's

caprolan®

tensile-tough nylon

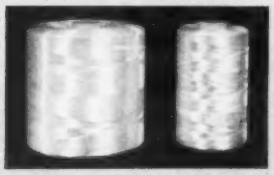
NYLON HEAVY YARNS

COMBINE DURABILITY, EASE OF DYEING, NEW SURFACE INTERESTS

Where beauty must be durable, Caprolan *deep-dye* nylon heavy yarns (2,000 denier and up) make it easy to obtain uniform shades of high fashion colors in high strength nylon yarns.

The product of over 12 years' original research by Allied Chemical, Caprolan has all the qualities normally expected of nylon and some new ones of its own. Most important of these for decorative fabrics is an unusual affinity for almost any class of dyestuff. When Caprolan is combined in fabric with other nylon, the greige goods can be dyed in a single bath to give new and interesting tone-on-tone effects.

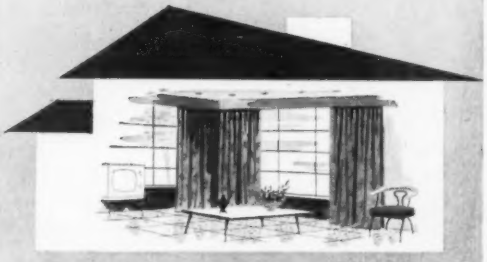
Caprolan offers you completely new design opportunities, as well as excellent hand and unusual and lasting whiteness, with no appreciable yellowing in storage. Available for both decorative and industrial fabrics, Caprolan heavy yarns can be engineered to your specification from 2,000 to as high as 50,000 denier. It can be ordered on knotless 30-pound and 10-pound parallel, non-returnable tubes, providing you longer runs between creelings, shorter conditioning cycles, ready dyeability, and the elimination of costly finer denier inventories. For more information about Caprolan nylon heavy yarns, call or write us today.



KNOTLESS 30-LB. AND 10-LB. PACKAGES ON PARALLEL, NON-RETURNABLE TUBES!

Upholstery

Carpets



Draperies

Fiber Sales and Service Allied Chemical *National Aniline Division*

261 Madison Avenue, New York City 16, N. Y.

Branch Offices—Jefferson Standard Building, Greensboro, N. C., 200-204 S. Front St., Phil. 6, Pa., 1& Westminster St., Providence 3, R. I.

CARTER TRAVELERS

ARE PRECISION MADE....

To insure spinning perfection (assured through constant testing)

Yes, Carter Travelers are precision made, and precision tested, by a modern metallurgical laboratory. This guarantees absolute uniformity of weight, temper and shape of Carter Travelers. Precision-matching to expensive rings means money-saving reductions of wear and cuts down time to an absolute minimum.

At every step of manufacturing, these precision travelers are constantly tested to assure maximum spindle speeds, smoother spinning, and more pounds per cone. To increase your production, and cut your costs, insist on Carter Travelers!

CARTER TRAVELER COMPANY

Division of A. B. CARTER, INC., GASTONIA, N. C.

Manufacturers of The Boyce Weavers Knotter

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R. A. Haynes, Special Representative	114 W. Fifth Ave., Gastonia, N. C.
W. L. Rankin	501 S. Chester St., Gastonia, N. C.
D. E. Phillips	2702 Garden Lakes Blvd., Rome, Georgia
P. L. Piercy	128 Hudson St., Spartanburg, S. C.
J. R. Richie	3014 Lewis Farm Road, Raleigh, N. C.
J. K. Davis	P. O. Box No. 129, Auburn, Ala.
C. E. Herrick	139 Main St., East Greenwich, R. I.
Oscar S. Lapham	139 Main St., East Greenwich, R. I.
Hugh Williams & Co.	27 Wellington Street, E, Toronto, Ontario, Canada

SUPPLIERS News — WHAT THEY ARE DOING

(Continued from page 76)

of the industrial division. Mr. Sweet was formerly engaged in technical service and sales with Antara division, General Aniline & Film Corp. in surfactants and industrial fields.

Don Smith, former assistant finisher at Lyman (S.C.) Printing & Finishing Co., has joined the sales staff of the **Harry Miller Corp.**, to service accounts in South Carolina.

The J. M. Nash Co., Inc., manufacturer of special machinery for the textile, wood-working, plastics and allied industries, has purchased the Dyken Manufacturing Co., producers of rolling machines and attachments designed to serve rug cleaners and manufacturers, textile processors, linoleum, insulating materials, etc. Operations will be continued as a wholly owned subsidiary, in the West Bend, Wis., factory, and the trade name "Dyken" will be retained.

John J. Fantry has joined the textile colors division of **Interchemical Corp.** as technical representative in the southern sales district with headquarters at Lee Street, Rock Hill,

Mr. Fantry

S. C. Mr. Fantry was formerly associated with the Warwick Chemical Co. division of Sun Chemical Corp. as Suntone service manager in the southern district.

Arnold, Hoffman & Co., Inc., has announced the appointment of Donald J. Eccleston as sales manager for the company's northern branch. With headquarters at the Teterboro, N. J., sales office, he assumes the position recently vacated by Leonard G. Tubbs, now general sales manager.

Watson & Desmond have moved from 301½ West Fourth St. to their new offices at 220 West Fourth St., Charlotte, N. C. Watson & Desmond, Inc., and Watdes Corp. will occupy these same offices.

Construction of a large distribution transformer plant for **Westinghouse Electric Corp.** in Athens, Ga., is under way. Gordon C. Hurlbert, manager of the distribution transformer department at Sharon, Pa., of which the new plant will be a part, has been named manager, with continuing responsibilities for the Sharon operation. The one-story structure will be located on a 252-acre site and will contain about 750,000 sq ft. Pole-type distribution transformers will be manufactured. Full production will employ about 1200 people.

George I. Simpson has been named to head the newly centralized sales yarn department of **Massachusetts Mohair Plush Co., Inc.** and its Neisler Mills, Inc., and Dana Warp Mills, Inc., divisions. George E. Weber is retiring as head of the Neisler Mills, Inc., division sales yarn department, but will continue to serve the company as consultant. The company's New York offices are located at 991 Avenue of the Americas.

A new plant now under way on South Carolina Bypass 291, South

L. F. Dommerich & Co. Inc.

Executive and General Offices

271 MADISON AVENUE

NEW YORK 16, N. Y.

Telephone: Murray Hill 3-8650

FACTORS

For Manufacturers and Merchants

Inquiries as to our services solicited

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BUSINESS ESTABLISHED 1840

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L. F. Dommerich & Co. California Corp.

819 Santee St., Los Angeles

Trinity 7171

luxurious hand

improved drape

affinity for color

absorbency

price stability

comfort

look what **AVISCO®** rayon brings to **BLENDS**

low price

luster

superb tailor-ability

friendly feel

static resistance

moth resistance

less need for glazing

cross-dyeing style potential

More and more manufacturers and cutters are discovering the magical effects they can achieve with new blends of rayon with other fibers.

The Avisco Integrity Tag makes such blends promotable. Fabrics qualified to bear the tag enjoy immediate consumer recognition at point of sale. This recognition is created by millions of dollars of national advertising which assures quality all the way back to the fiber.

We will be happy to consult with you on the myriad possibilities of rayon blends. Call LA 4-7200 or write American Viscose Corp., 350 Fifth Ave., New York 1, N.Y.

SUPPLIERS News
WHAT THEY ARE DOING

Pleasantburg Drive between the Augusta and Laurens Roads adjacent to the Greenville city line, will house the **Marshall & Williams Southern Corp.** and the **Marshall & Williams Equipment Co.**, including sales and service headquarters, manufacturing facilities, and repair departments for all types of tenter frame equipment.

V. J. Dionne, formerly associated with Virginia-Carolina Chemical Corp. where his responsibilities included market development and technical service work in connection with the use of Vicara fiber for woven fabrics, has joined the merchandising division of **Industrial Rayon Corp.**

Mr. Dionne

with headquarters in the New York sales offices. In his new post, Mr. Dionne will be concerned with market development and fabric creation activities in connection with the application of the firm's filament rayon products, with special emphasis on apparel fabrics and drapery and upholstery fabrics.

Reliance Electric & Engineering Co. has established Rochester as headquarters for central western New York district sales and service and has opened three additional sales offices. The southwestern district, with headquarters in Houston, has been divided into a Gulf Coast district, directed from the same office, and a new Dallas district, with an office in that city. The other two new offices are the Mahoning Valley office (the Warren - Youngstown, Ohio, area) and a sales office in Washington, D. C. W. K. Schlotterback moves from district manager in Buffalo, N. Y., to head the Dallas office, and W. L. Brehmer, formerly in charge of the sales office in Syracuse, N. Y., has been appointed district manager of the central western New York district. F. A. Denison, district manager in Houston, heads the Gulf Coast district. F. E. Davis

Are You Getting a Fair Day's Work for a Fair Day's Pay?

As Production Engineers we specialize in the utilization of

LABOR—EQUIPMENT—MATERIAL

Our list of clients reads like the Blue Book of American Manufacture, and in our files are many expressions as to our service and results accomplished, like the following:

"They have done an outstanding job for us. I consider them as the outstanding organization in this field."
A GREAT FULLY INTEGRATED TEXTILE MILL

Write for a free copy of "Labor and Management Benefit by Industrial Engineering Principles," and our booklet "A Fair Day's Pay and in return A Fair Day's Work".

AMERICAN ASSOCIATED CONSULTANTS, Inc.

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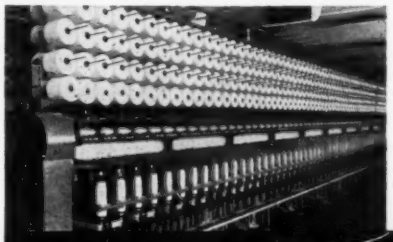
GRANT BUILDING, PITTSBURGH, PA.
H. B. CRAFT, Vice President and Manager of Operations — 250 PARK AVENUE, NEW YORK 17, N. Y.



Tops for Cotton Tire Cord Paper

COLLINS Big Ring Twisters =

Collins Big Ring Twisters produce 4 to 12 lb. packages of exceptionally clean knotless yarns, when employing a 6 to 8 in. ring size.

High Speeds are possible because Collins Big Ring Twisters are equipped with large diameter pulleys, anti-friction idlers, ball bearing front roller stands, large diameter feed rolls, and roller bearing spindles.

Low Cost is achieved through increased twisting and winding efficiency. *Quality* is inherent in big packages of knotless yarns. Write for full information on Collins Big Ring Twisters and Collins convenient financing plan.

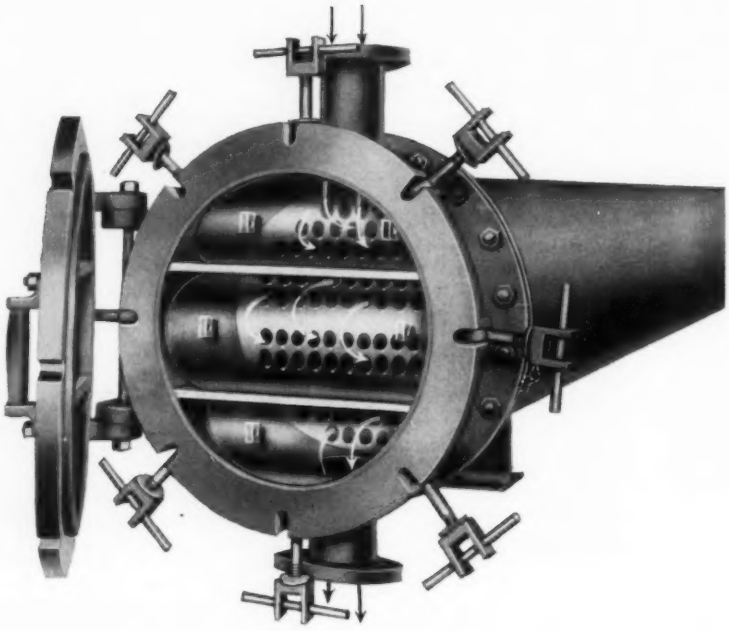
Big Packages Clean Knotless Yarn at Higher Speed ...Low Cost

COLLINS BROTHERS MACHINE COMPANY
647 Roosevelt Ave., Pawtucket, R. I., Est. 1866
CHARLOTTE • CHICAGO • TORONTO

There is a Collins Twister for Every Ply Yarn Construction

SIMS *Makes it easy to make sure it's clean*

Examine this cut-away view of the Sims Textile Type Heat Exchanger. Large tubes are belled into mirror-smooth stainless steel tube plates. Experience with scores of textile installations prove the effectiveness of these cling-free surfaces in resisting fiber build-up. Removable curved baffles direct and speed the waste fluids thru the 4 passes. The quick opening doors at each end permit full access to entire interior for hose flushing a few times a year—a 30 to 60 minute job. Nothing is left to the imagination. To see is to know that it is clean.



Takes only minutes to open, flush clean and close a Sims Textile Type Heat Exchanger

Sims, with 70 years experience in heat recovery, has scores of textile applications to prove that its direct and simple method of keeping exchangers clean pays off. All heat recovery takes place in an easy to get at exchanger. To see is to know that it is clean as a "hound's tooth." In a matter of minutes you can open, inspect, flush clean and close a Sims Textile Heat Exchanger.

This is no time to permit wastes to warm the sewers. For every Sims installation must not only pay for itself in a set time but must return a yearly profit on your investment—or no sale. The integrity of a 70 year old company is behind our recommendation. Write for data today. Box 1096T, Erie, Pennsylvania.

THE SIMS COMPANY

Manufacturers of **Exhaust Gas Boilers**
Heat Exchangers • Storage Water Heaters
Feed Water Heaters • Steam Separators

OUR 70th YEAR

ERIE, PENNSYLVANIA

Commercial Type Instantaneous Water Heaters • Oil Heaters • Quenching Oil Coolers • Caustic Soda (Sodium Hydroxide NaOH) Recovery Equipment.

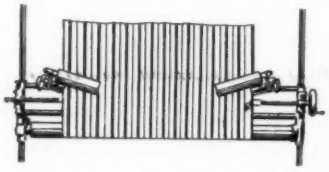
WORLD-FAMOUS GUIDER . . . the compass has dependably directed travelers to journey's end . . . for centuries.

WORLD-FAMOUS, too . . . in textile plants everywhere is the ever-dependable

MECHO AIR GUIDER

***Famous for* INCREASING PROFITS, BOOSTING CLOTH PRODUCTION, REDUCING HANDLING COSTS, DAMAGE and LOSS.**

The MECHO Guider is so precision-engineered, it is accurate within one-eighth of an inch of a given mark and ranges from 1 to 400 ypm. Its hypersensitive selvage finger is guaranteed not to turn double edges. An ingenious control . . . without counterweights or linkages . . . infinitely adjusts selvage finger tension, while in operation, to suit the particular weight and weave of fabric. Stainless steel, acid- and moisture-resistant units with sealed bearings are also available.



MECHO Guiders have been standard equipment in hundreds of finishing plants for more than 20 years, handling woven and non-woven fabrics, semi-rigid plastics, artificial leather and rubber, felt and gauze. *What greater testimony to product performance can one ask?* Isn't that the kind of product you want in your plant?

PHONE, WIRE or WRITE TODAY for a MECHO complete Guiding Service catalog; it's free.

GUIDER SPECIALTY COMPANY
431 W. Rock Ave.
New Haven 15, Conn.

SUPPLIERS News
WHAT THEY ARE DOING

will manage the Mahoning Valley office; and H. A. Cirbee goes to Washington to operate the new office there. Newly appointed as sales engineers are: R. M. Linn to the Syracuse, N. Y., office; R. J. Hilarides and Richard G. Emslie to Buffalo; B. D. Stark to Boston, Mass.; J. G. King, Jr., to Atlanta, Ga.; A. W. Fairer to Charlotte, N. C.; and D. G. Gordon to Birmingham, Ala.

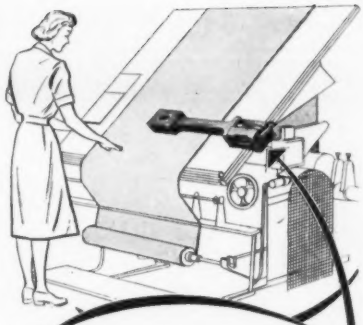
Stodghill and Co., a proprietorship during the lifetime of the late Clifford M. Stodghill, has been incorporated and is now operated by S. F. Burt, president and sales manager; J. F.

Mr. Burt, Mrs. McMullan, Mr. Oliver

Oliver, vice-president and chemist; and Mrs. E. H. McMullan, secretary and treasurer. D. K. Ogles and H. F. West will continue to represent the firm in sales and service work.

Bert W. Ahrens, formerly with Apex Chemical Co., is new technical sales representative of the technical products division of **E. F. Drew & Co., Inc.**

Assistant manager posts have been created at four major offices of the **A. E. Staley Manufacturing Co.,** and have been filled by promotions of men experienced in the industrial sales department as follows: for New York City, W. G. Dahlquist, formerly manager of the chemical sales section in Decatur, Ill.; for Boston, Mass., W. D. Ray, previously industrial sales representative in Chicago, Ill.; for Philadelphia, G. A. T. Moore, formerly a sales representative in Boston, Mass.; and for Cleveland, Ohio, G. M. Donelan, previously a New York territory sales representative. Other personnel changes include the transfer of Richard Kamins from Decatur to the Boston office; Walter Molash, Minneapolis, Minn., sales representative to the Chicago office; and J. H. Kelly, Philadelphia sales representative to the Minneapolis sales office.



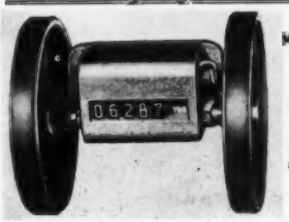
Something you owe your customers

Accurate textile measurement is what your customers expect. Give it to them! Show them indisputable evidence with a "TRUMETER" printed ticket or mill tag, delivered at any point during the run. This way you not only eliminate short-measure complaints and illegible handwritten records—you cut out waste *completely.* And that means EXTRA PROFITS!

"Trumeter" Standard Measuring Machine

"TRUMETER" can be fixed to most Inspection, Plaiting, Winding, Rolling and Doubling machines. Models are available for all types and widths of material—fine nylon, woolens, worsteds—even carpets, plastics, etc. It adds one way—subtracts the other and delivers its printed ticket with one depression of a lever. "TRUMETER" is always accurate — always reliable. There's one for *your* need. Write now for particulars of complete line.

"TRUMETER"



MECHANICAL QUICK RESET COUNTERS *for most industrial needs*

• MEASURING • REVOLUTION
• PRE-DETERMINED • STROKE

Write for details or see us in Greenville at Booth 228

TRUMETER COMPANY
1265 Broadway, New York City, New York

IN CANADA:
Dominion Electrohome Industries LTD.
Kitchener, Ont.

Get the most out of your desizing agent!

DESIZE WITH EXSIZE-T

★ EASY TO USE!

★ RELIABLE!

★ ECONOMICAL!

★ SAFE!

Here is an easy-to-use, economical desizing agent which is absolutely safe on all fabrics . . . a quick and complete starch digester . . . always dependable.

So, if you need a reliable, efficient agent for preparation of cloth prior to bleaching, dyeing, printing and special finishing, it's to *your* advantage to investigate Exsize-T!

For more information, write to

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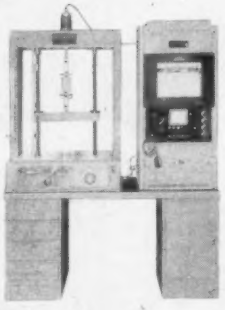
at Greenville
SCOTT will SHOW

an entirely new Textile Tester

MODEL CET

opening new worlds of information in the evaluation of materials from single fiber to finished construction.

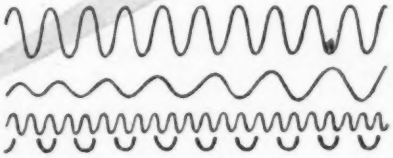


TENSILE

HYSTERESIS

COMPRESSION

A wholly new standard of accuracy and versatility in the range 0 — 2,000 lbs.



Factory representatives in attendance

BOOTH NO. 401

(If unable to attend please request CET Literature).

SCOTT TESTERS, Inc.

60 BLACKSTONE ST., PROVIDENCE, R. I.

Rep. for Ala., Ky., Tenn., Va.
(Also Southeastern Service & Repairs)
Scott Testers (Southern), Inc.
Spartanburg, S. C.

Mexico Representative:
Brassel and Morales
Amores No. 843
Co. Del Valle
P. O. Box 2064
Mexico, 12, D. F.

REPRESENTATIVES IN FOREIGN COUNTRIES

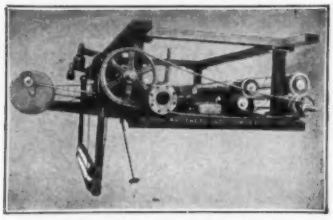
MEET US AT GREENVILLE
SPACES 247-248 2nd FLOOR
SOUTHERN TEXTILE EXPOSITION
FOR OUR LATEST MACHINES

BIRCH TREE

BIRCH BROTHERS, Inc.
Harold W. Birch
Clifford W. Birch, Jr.
SOMERVILLE 43, MASS.
Southern Representative
JOHN C. COSBY,
Greenville, S. C.
DESIGNERS and BUILDERS
of MODERN FINISHING MACH'Y.

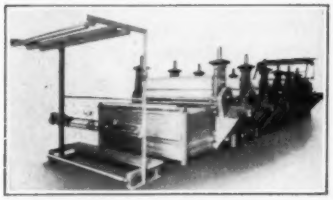
FOR BEST EXTRACTION

Patent Reinforced Adjustable Vacuum Extracting Box with Automatic Slot Seals. Used in combination with dry cans, scutchers, mangles, and continuous mach nes.



BALL BEARING CLOTH OPENING AND FOLDING MACHINE

for woolens, worsteds, laces, cottons, tricot and pile fabrics. Machine illustrated is fitted with our Patent Adjustable Slot Vacuum Extractor so that the mach ne combines opening, extracting and folding in one operation.



7 Tank Stainless Steel Open Width Machine for Scouring, Crabbing, Dyeing and Open Soaping. Pressure applied by air to rubber squeeze rolls. Drive by D. C. motors controlled by rheostats actuated by compensating rolls to give uniform and desired tension. Used on Cottons, Rayon Blends, Gabardines, Worsteds and Woolens, and w.th modifications on pile fabrics.

PATENTED LONG LIFE RUBBER EXPANDER

with rubber 3/4" thick giving longer life and better stretch.

An EXECUTIVE Views
THE NEWS IN TEXTILES

(Continued from page 143)

gentlemen's game of golf, gin rummy, or poker; nor do we know or have we ever had occasion to consider where we might increase our textile chemical sales with a kickback, any gift, regardless of expense, or any college education for Junior.

If there is any justification in the timing of a discussion of ethics in the textile supply business, it may be the noticeable trend of the large vertical and newly integrated company managements to expect their purchasing and procurement departments to obtain unusual price concessions based on what they consider as unusual volume. In the basic chemical field there is a rather definite limit to the quantity discount available to the textile chemical specialty manufacturer, and the same fine line applies to both delivery and selling costs.

It would seem rather unnecessary in these enlightened times to consider that transactions are being made without investigating supplier reputation for both product and service. It is also surprising to learn that the honest producer might have to rely on tact to suggest that purchased materials be analyzed. This kind of investigation is a regular daily function of mill, supplier, and commercial laboratories, the accuracy of whose findings are limited only by the interpretation of results as they are correlated with the efficiency of textile wet processing.

The . . . . reporting of *Chemical Week* on a subject of which this reader has some intelligence, if for no other reason than having had twenty years' experience in the buying and selling of textile chemicals, will most certainly affect his acceptance of factual reporting on other chemical subjects appearing in the same publication.

It is hoped that the replies to this article will be numerous and printable, to the end that a reputable southern textile industry may be defended and that the shadow of doubt may be removed from the ethical suppliers to this important segment of American industry.

"No Trouble at All"

This statement was given to TEXTILE INDUSTRIES by the publicity department of a large chemical company; textile chemicals are a relatively minor part of its business.

The local [*Chemical Week*] office contacted us when compiling information for this article. The statement which we gave them at that time would, I believe, suffice as a statement to your publication.

Our sales department informs me that we have had absolutely no trouble with this situation at all. Actually, in the over-all textile business picture, we are still rather a

built to give dependable trouble-free service on all jobs

DARNELL
CASTERS AND WHEELS

Outlast Them All!

RUBBER TREADS . . . a wide choice of treads suited to all types of floors, including Darnelloprene oil, water and chemical-resistant treads,

RUST-PROOFED . . . by zinc plating, Darnell Casters give longer, care-free life

LUBRICATION . . . all swivel and wheel bearings are factory packed with a high quality grease that "stands up" under attack by heat and water.

STRING GUARDS . . . Even though string and ravelings may wind around the hub, these string guards insure easy rolling at all times.

FREE
new
MANUAL

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Rusty Cylinders Reconditioned Without Sanding or Pickling!

In order to condition rusty steel cylinders for resurfacing, one mill used to hand sand each one; then pickle in muriatic acid. Now, thanks to amazing new Oakite Rustripper, both steps have been completely eliminated. Cylinders are simply immersed in a hot solution of Rustripper for three minutes and rinsed – rust and grime are thoroughly removed in a single operation! – And because Rustripper is an alkaline material, there are no longer any dangerous acidic fumes or waste disposal problems to contend with, either! For details, write Oakite Products, Inc., 52 Rector Street, New York 6, N.Y.

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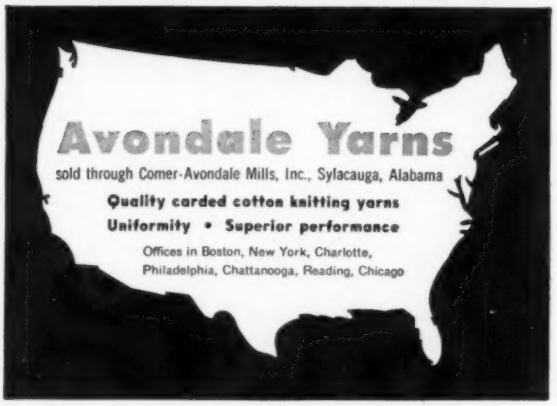
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small factor, dealing more in drums than in carload lots. At no time in any of our contacts with the textile industry has the question of any kickback or illegal sale been brought up.

Of course, it goes without saying that as a reputable and substantial company, we would have no part of any such sales procedure.

Can Sell on Honest Basis

Another southern manufacturer of textile chemicals insists that it *is* possible to sell to the textile industry on an honest basis.

Our initial reaction to this article was resentment. . . . there is undoubtedly some shady business done in the textile (and no doubt other) industries. . . .

The one particular item with which we strongly disagree is the statement "Another firm dropped a promising textile-chemical specialty because it was impossible to sell on an honest basis." We know it *is* possible to sell the textile industry on an honest basis. In fact it is doubtful if there is any other industry more receptive to anything promising or new that might help to sell its goods; few industries seem to have the selling problems of the textile industry.

Textiles Not Unique

The writer of the following, sales manager for the textile division of a chemical company, points out that the textile industry does not have lower ethical standards than other industries; in his opinion, the problem of kickbacks, to whatever extent it exists, is one expression of a lowered standard of business morality.

. . . . on the whole this article has put into print only facts, rumors, and conjectures that have long been associated with the selling phase of any industry. The author's selection of the textile industry as a class, and the purchasing function in particular, is like blaming the poor cutting action of a saw on one particular dull tooth. This matter of kickbacks is in my opinion only one expression of an almost general tolerant acceptance of lowered standards of a deteriorated business morality.

I am no crusader. Neither do I condone the practices he complains of, especially in the matter of cash bribes, but if the author has such a burning and unselfish urge to clean out the Augean stables, why not include all industries and work from the top down? Does he feel that the textile industry is unique in having all the dishonest people of the business world?

My own feeling in this matter is

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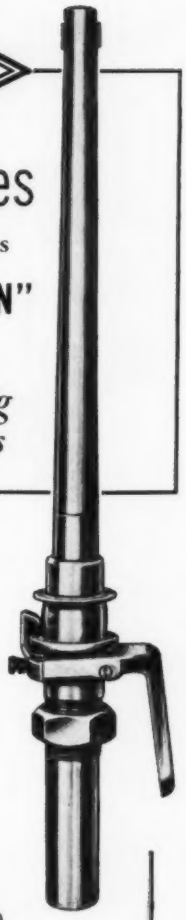
Spindles

with famous

"OERLIKON"

Roller Bearing Inserts



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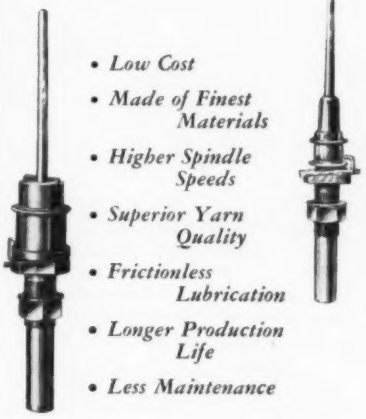

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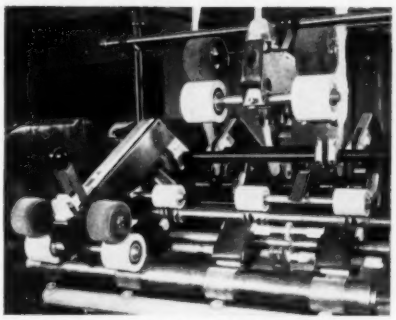

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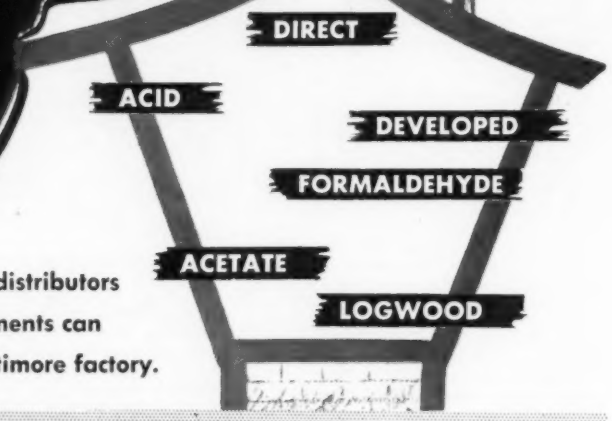

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that the subject is entirely one of relative morality in business, for which standards are not very rigidly fixed. We constantly read and hear of corporations and executives spending huge sums at corporate expense on entertainment and their appurtenances, such as yachts or yacht trips, apartments, feminine entertainers, and in some cases, loans of automobiles, deep freezers, mink coats, etc., at the officer, management, and political levels. If such practices are condoned for building good will at management and policy levels, to what degree may they be permitted at the purchasing and operating levels for the same purpose without the stigma of implied bribery?

After spending thirty years both in selection and purchasing supplies for a commission bleachery, as plant chemist, and later in the sale and promotion of such chemicals, I can hardly be considered naive in my approach to that subject. While undoubtedly abuse exists, and every type of bribery he mentions does exist or has been practiced along with some other types he missed, the extent in my opinion is greatly exaggerated.

I question to what extent the author's consultants actually have personal knowledge of these abuses he complains of, in a manner that would stand up as evidence in court and to what extent it is hearsay. It is surprising the amount of scuttlebutt you can hear in this business without being able to prove its existence. As you know, some concerns have a reputation, deservedly or not, of "paying off." Whenever they are selling an account, what is the first excuse for failure to get the account by a salesman for a competitor—schmere!—with a pungent flavor of sour grapes!

On the other hand, what would you think when salesmen calling on accounts of a competitor can not even get an interview from any of his accounts, but have no trouble in this respect elsewhere in the trade; still no proof that such a suspected situation exists, but it gets talked about nevertheless.

The author implies that the larger manufacturers and sales companies are free of this taint, but as far as I hear, 'taint so. To be sure they will not give a dyer a kickback, but some years ago there was a story going the rounds of an annual loan of a new car to a textile finishing executive, by one of our large simon-pure dyestuff manufacturers. But who can tell!

I feel . . . . we should recognize that such practices do exist to some extent and then prepare a code of business ethics in which the evil practices will be brought to light and described in detail to avoid any subterfuge in the future. In the same manner, define the acceptable practices unequivocally, with due allowances for accepted practice and human nature.

After a statement of policy, we only then have a yardstick to gauge conduct, but nothing to assure honesty. Just as an accounting system is a deterrent and helps to keep management honest, so a similar system can be used to greatly reduce the abuses the author complains of. You note I did

lumps in your opening line

It costs nothing to find out if your present equipment is handling your fibers efficiently—and it may prevent poor work, insufficient cleaning, waste, and lost production.

Surveys made by Dodenhoff engineers show that the aprons on over 30% of today's opening equipment are out of date. In many cases, only simple changes of pin sizes or slat respacing were necessary. Call on Dodenhoff for a free check-up on your equipment. And for opening equipment and aprons of unmatched efficiency, always call on Dodenhoff first.

New and reworked Textile Aprons **Beater Slats**
Waste Machine Cylinders **Kirschner Beaters**

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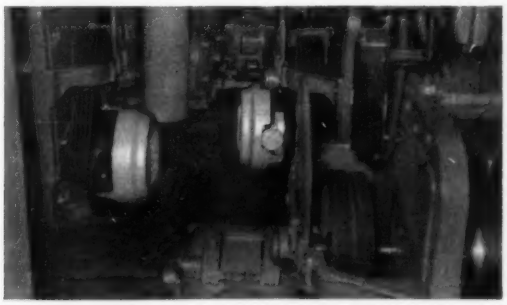

the Flywheel effect in half the space

Notice in this illustration how the compact Fairbanks-Morse axial air gap motor is ideally suited to spinning frame drive. But in addition to important space saving, the axial air gap motor gives you three times the flywheel effect of the conventional motor.

This larger flywheel effect plus extremely smooth torque acceleration gives smooth starting and smoother operation of the driven machine—resulting in better quality of material produced.

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You are assured of a cordial welcome from our Executive and Sales personnel. We hope to see you at the Show!

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not claim it will eliminate this abuse.

One system employed in a large plant would seem to eliminate the probability of graft if it were rigidly adhered to with no deviations allowed by operating supervisors. In this system the research department passes on the suitability of all products offered. If suitability is determined at the price offered, it is certified to the purchasing department. This department is required to purchase from two or three sources alternately.

One weakness of course is that the operating staff criticizes the selection and may try to force selection of their own preference. At this point, opportunity for abuse enters if the requests are acceded to without having the product certified by the research department. Of course, appropriate duplicate copies of certification and purchases must be circulated within the plant to insure complete knowledge of the transaction throughout the organization.

Only "Lesser" Firms Guilty

The following comments were made by the representative of a large chemical company.

We are aware that graft of the kind described does exist in the textile industry, although we question if it is any more prevalent than in other industries.

Of one thing we are quite certain, however; such graft among suppliers of textile chemicals is confined to lesser firms of questionable reputation and definitely is not practiced by leading companies, whose good names are well established, regardless of whether they are large or small in size.

Tell the FTC

This chemical company executive suggests that *Chemical Week* should present its evidence to the Federal Trade Commission.

If the publication *Chemical Week* can substantiate [its statements] by actual proof, ... it should bring the matter before the Federal Trade Commission as the proper authority to end these practices.

We cannot believe that this condition is prevalent in the larger mills, which spend considerable money in research and laboratory investigation of products which they consume. . . .

Why not write an editorial and request *Chemical Week* to substantiate their accusations by factual evidence, even if names are required to be mentioned.

It is the writer's opinion that there may be some isolated cases where friendly conditions exist between the buyer and seller. However, I do not believe that a legitimate manufacturer who has an established reputation would knowingly permit the salesman to resort to the practices mentioned in the article in *Chemical Week*.

(Contnued opposite page)

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CANVAS BASKETS
CANVAS TRUCKS
CANVAS HAMPERS
and
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SEE OUR EXHIBIT AT TEXTILE HALL BOOTH NO. 355 BALCONY

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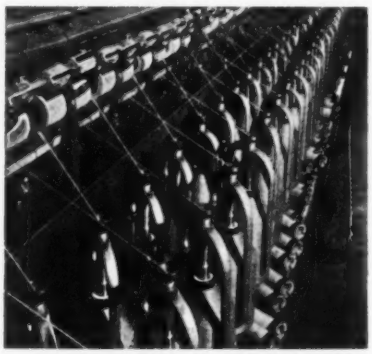

HALO TWIST CONDENSERS & ROVING PRETWISTERS FOR ALL SIZES OF FLYERS

In extensive tests actually in the mills, it has been proved that the HALO TWIST CONDENSER effects the following conditions: less ends down, less waste, heavier bobbins, more uniform yarn, up to 20% higher production, and lower costs.

Write for details today. Orders will be filled in one to ten days.

Tillicum
RUBBER COMPANY
LACEY WASHINGTON

Views With Alarm

This sales manager appears to be in general agreement with the *Chemical Week article*. The editors have some doubt about the source of the quote at the end of the letter; it does not appear in *Bartlett* or other standard reference works. Everyone seems to have heard it, or have seen it framed on a wall but no one can pinpoint the author. Do any readers know where it first appeared?

Over the years we have encountered allegations that the situation as described in the article did exist with respect to certain dealers. It had been further reported that the quality of the goods involved were in some instances below normal industry standards. We certainly deplore such a situation and look forward to the day when such will no longer exist.

Our company is a firm believer in the oft-quoted philosophy of Spencer Love—"There is nothing in the world that some one cannot make a little bit cheaper and sell for a little bit less, but he who thinks of price alone is that man's lawful prey."

Chemical Week *Is Right*

The author of the following, the general superintendent of a textile plant, was the only mill man questioned by TEXTILE INDUSTRIES who expressed agreement with the *Chemical Week* article.

. . . . it is my opinion that any such shenanigans, no matter how small the percentage, *are* hurting the business. And in my opinion, there is more of it going on now than at any time during my 22 years in the business. I personally have told four representatives who sell textile chemicals not to call on us any more. This in the last 18 months.

About a year ago, a young acquaintance of mine asked my advice about his taking a job as salesman with a company reputed to offer kickbacks to its customers. He took the job anyway. Some six to eight months later he told me he had to quit because what I had told him was true.

I hate to see this sort of stuff in print, but it is my opinion that it should be brought out and exposed until it is killed.

Facts Well Represented

This chemical company executive agrees in most points with *Chemical Week*, and in fact would raise the estimate given in the article of the percentage of textile chemicals sold by unethical practices.

I am sorry to say that I must agree

HOW ANDERSON SHIELDS INCREASE SPINNING ROOM EFFICIENCY

Spinning rooms using Anderson Shields save time and money, and prevent disruption when unnecessary breaking, chipping, and splitting of bobbins and spools is avoided. In a year's time these items alone can amount to a surprising sum . . . Insist on Anderson and get the best protection metal shields afford . . . Watch your spinning room efficiency increase!

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Metal Protection for Wood Turnings

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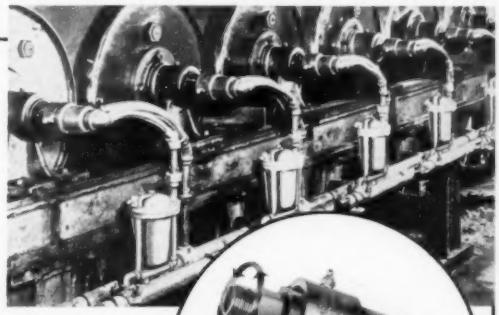
LAWRENCE, MASS., U.S.A.



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You can't beat this combination for heating drums and saving steam. The ROTARY UNION* is a trouble-free precision mechanical rotating seal which is self-adjusting and self-aligning. The UNITRAP® is the only trap which *automatically* delivers peak efficiency at all pressures from 0 to 125 lbs. Handles a tremendous volume with a minimum of wear. All working parts are stainless steel. Just order by pipe size, ½" through 2". Contact our nearest office or write for Bulletin 700T and 800T.

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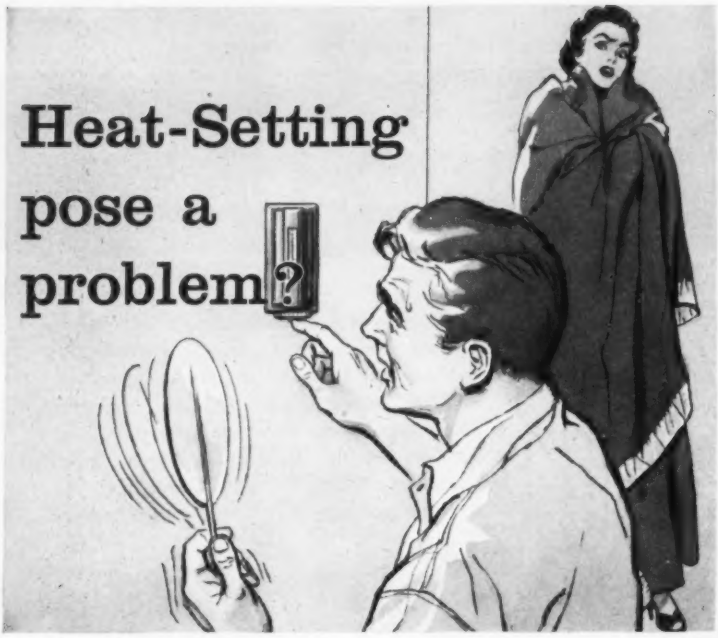

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Find out now how Supranyl can save you many dollars in your operation. It requires no additives . . . stands greater dilution . . . and your initial cost is lower. Write today for more information, Textile Department TI-10.

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MILTON steel barrel Warp Beams are sturdily constructed with cast iron adjustable or fixed flanges. Ends equipped for all types of let-off.

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with *Chemical Week* in the actual facts of the matter. In all the details in the article I do not entirely agree, but for the most part they represent the actual facts. Two things in their article I would like to take exception to are:

1. The South is more free from these practices than New York or New England. Admittedly it is operated on a different basis, but certainly it must be classified in the same category.

2. The "giver" includes only resellers and sales agents of small manufacturers. Some of the largest manufacturers in the business are responsible for this bad situation and, as a matter of fact, some of the smaller resellers operate on an entirely ethical and fair basis. The larger manufacturers are prone to condemn resellers as the cause of all of this difficulty. This in itself is purely propaganda distributed by some of the larger manufacturers to influence purchasing agents while they continue with their routine of excessive entertainment, expensive gifts, and any other favors necessary to accomplish the purpose.

The estimate which they have given of 25% of the business carried out this way is, in my opinion, quite small since some of the largest textile companies in the business are operated in this manner.

. . . . if this was an erroneous impression it should be cleared up, but I must admit that I think the facts are pretty well represented.

Right or wrong, this is the way the chemical business is operating at the moment.

"Considerable Truth"

General agreement with the findings of *Chemical Week's* editors is also expressed by this chemical company executive.

Regret that a realistic analysis of textile chemical sales and methods of attaining same, forces the writer to admit that there is considerable truth in the article.

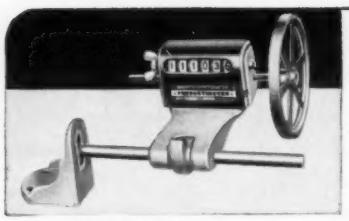
Believe the implication that it could be as high as 25% is misleading, as to total volume but could be reasonably accurate when applied to number of mills and finishing plants.

We sell to many industries but find that in the textile industry, graft, kickbacks, backdoor operations, excessive entertainment, etc., are much more rampant. . . .

The larger chemical manufacturers have adhered to legitimate sales promotional efforts in the development of their textile chemical sales. The smaller manufacturers and compounders have resorted to any means to develop their sales.

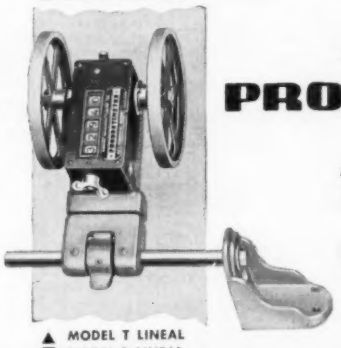
In the . . . . area it is contended with little dissent that at least 50% of the plants are susceptible to kickbacks or deals. We do not, therefore, attempt to solicit business from more than twenty textile processing plants in this area.

In all fairness, we wish to point out that the textile industry is not alone subject to this practice. We believe that, however, it is more widespread and unofficially tolerated in the textile industry.



▲ MODEL H LINEAL

Model 5-SP-7-1
PREDETERMINED



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PRODUCTIMETER
for every type of . . .
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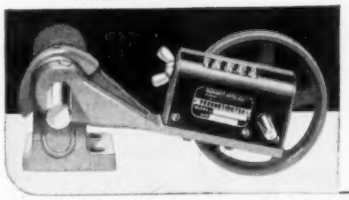
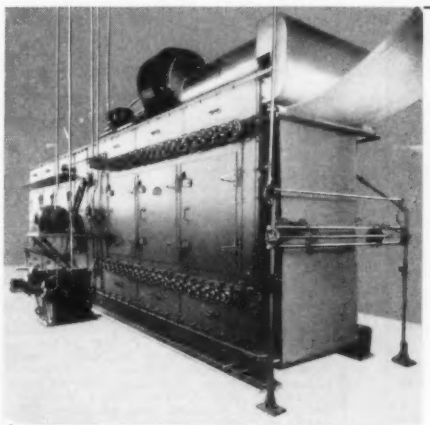


Model 5-H-7-1-R
END DRIVE ROTARY



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IHE Resin Curing Machines, direct fired with either gas or oil, give much wider temperature range, and more positive temperature control. The tension control features of this machine make it ideal for embossed goods, and for curing of water repellent and wrinkle resistant resin finishes. IHE can also supply machines for curing latex-treated fabrics. If your resin curing costs are too high, or if you have other curing problems, let IHE engineers survey and make recommendations.

***Industrial Heat* ENGINEERING CO.**
121 CLEVELAND STREET, GREENVILLE, SOUTH CAROLINA

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Jap mills

(from page 174)

of textiles is almost entirely in the hands of merchant trading firms which engage extensively in both import and export trade and so are in a position to use their trading power to make close package deals in many markets. "At the same time, they both compete strenuously with each other and cooperate with each other where there is mutual advantage."

The Canadians found that Japan is not basically a copying country "although there has been a great deal of copying of Western styles and types . . . Japan has a great deal of refined artistic taste, and there is plenty of evidence of original research on an extensive scale, original design, and genuine innovation. The Japanese regret that more of it is not accepted in export markets. In fact, they are now making efforts to promote their own design. At the same time, there is no excuse for copying which has occasionally occurred of brand names, label types, implied false country of origin; all of which can only damage Japan's trading reputation. Formal arrangements intended to prevent misleading copying have now been set up."

It was found that there has been a substantial up-grading in quality standards and fineness of Japanese textile construction since prewar. "Much of their production is now of a type quite acceptable to Western markets, and this trend will continue. All of the innovations of the last decade in new fibers, new processes, and new finishes, appear to be present. It would be difficult to locate any type of textile used in America which is not, or cannot be, produced in Japan."

In Japan it is generally accepted as a basic principle that these acceptable goods are sold for export at lower prices than for home consumption. "They have such a margin between cost and prevailing foreign market prices that they can easily, through competition, be driven down by their customers to place goods in other countries which are ruinously low in price to the domestic competitor.

As a consequence, Japanese authorities, who have almost unlimited powers in this respect, and who are always aware of the necessity of avoiding reprisals, are attempting to restrain some overzealous exporters.

"How they can make export quotas operate over hundreds of exporters is something which has yet to be proven. Failure of previous systems leaves more than a little doubt that it can be done," the report stated.

A subsidiary feature of export control is that placed on quality. The Canadians said that goods for export are required to have a certificate of quality, and to be stamped with a seal of approval. For this purpose there are a series of inspection organizations organized by the textile industry and administered under government supervision. While some evasions are reported, this does provide an effective instrument through which the government can prevent export of textiles below specified

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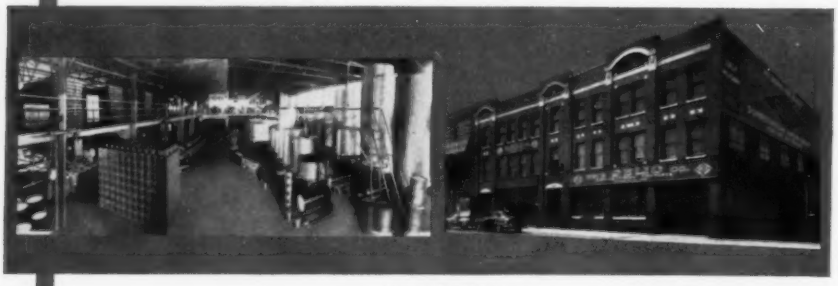

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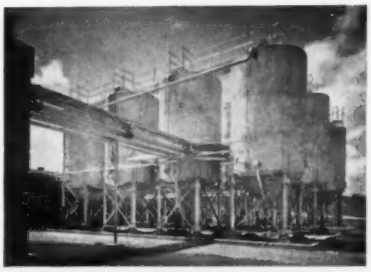

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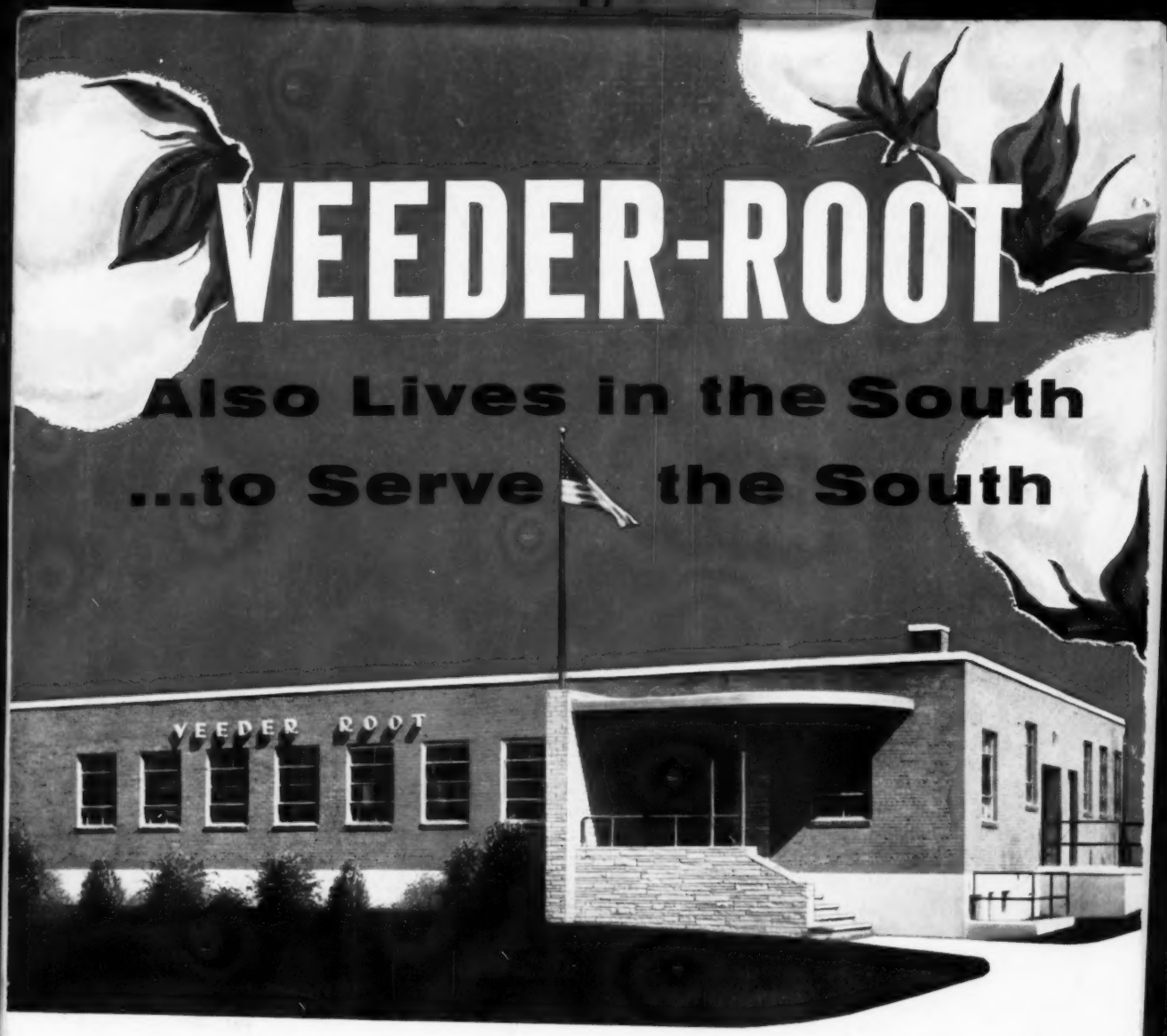

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